CAUSAL ATTRIBUTIONS FOR MARITAL SEPARATION

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ABSTRACT

The main purpose of this study was to analyse the structure and content of real-life causal attributions, using this data to examine some important theoretical and empirical issues within attribution theory. Chapter one provides a justificatory backdrop to this research. It is argued here that this type of real-life exploratory research is sorely needed because the vast bulk of the attribution research has hitherto utilised a laboratory based experimental approach which has weak ecological validity.

The causal attributions examined came from free-response verbal protocols of explanations for marital separation. The sample comprised 29 males and 33 females, living in Hamilton, New Zealand, all of whom had been physically separated for less than 18 months. Two attribution taxonomies were developed to classify the attributions, both of which had adequate inter-rater reliability. One taxonomy was in terms of content attributions (e.g. communication, sex, etc.), while the other was an abstract taxonomy in terms of attitudes, personality characteristics, etc. The findings from these taxonomies, which included some interesting sex differences, are fully discussed.

The technique of subjective magnitude estimation (developed by S.S. Stevens within the field of psychophysics) was used by respondents to give causal importance weights to the attributions derived from the verbal protocols. Ratio-level data, representing perceived causal responsibility for different attribution targets (self, ex-spouse, external factors, etc.) were derived from these weights, and multiple regression tests were carried out to examine the impact exerted by a range of independent variables on these attribution category percentages. It was found that the most influence on these derived attribution percentages was exerted by which partner decided to leave, education level and personal control. There was also some evidence that attribution patterns were related to self-reported levels of coping. A range of evidence,

including convergent validity and reliability correlations, is presented which supports the validity of using this technique for deriving ratio level data from verbal protocols.

The descriptive and other data gathered was found to be both consistent and inconsistent with different aspects of attribution theory. The major findings inconsistent with the extant theories, were the range and complexity of people's explanations, and people's tendency to make attributions for dispositions. Conversely, the data strongly supported the psychological validity of the internal-external distinction, and also supported attribution theory's assumption that personal dispositions are the most important class of attribution.

A number of other empirical attribution issues are examined, the main ones being the self-serving defensive attribution model vs the information processing model and the question of where the causal attributions come from. In the former case it is argued that both models are supported by our data. In the latter case, it is concluded that, (a) there does exist a socially shared theory of what causes marriages to break up, (b) that separated people do not select their attributions by consulting this theory, and (c) that they do cognitively access this theory in the process of providing causal importance weights for the attributions.

A range of other findings is presented. For example, one finding of interest was that more females (64%) decided to leave the marriage than males (21%). In all cases explanations are proffered and discussed for the reported findings.

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CHAPTER I

Attribution Theory and Research

In this section the background thinking that lies behind the research reported here will be outlined. In the process, attribution theory and a little of the associated research will be described. The aim is to provide a justificatory backdrop to the present research so that its nature and aims will become more intelligible to the reader.

Attribution theory is now well ensconced as one of the dominant overarching theoretical perspectives or approaches in social psychology. What is attribution theory? Attribution theory is concerned with the rules and cognitive processes by which people make attributions. The term "attribution theory" is something of a misnomer as there is no one theory but a group of theories. Accordingly, attribution theory represents a loosely tied set of ideas and concerns, rather than a single tightly specified model. There are three major theories of attribution. These are the theories developed by Heider (1944, 1958), Kelley (1967, 1972, 1973), and Jones and his colleagues (Jones and Davis, 1965; Jones and McGillis, 1976).

Heider's theory represents a diverse collection of ideas, while the subsequent theories of Jones and Davis and Kelley, although building on Heider, attempted to provide tighter and more fully specified models of the attribution process. All theories, although including motivational variables, represent the naive psychologist as a somewhat cool individual who processes information in a relatively dispassionate manner, according to specified rules and principles[1].

In addition to these characteristic features of attribution theory, Ross and Fletcher (in press) detail a number of key assumptions concerning the causal attribution process, derived initially from

Heider's work, which they argue have tended to operate as a powerful set of presuppositions in much of the subsequent research. The first point is that commonsense, as exemplified in our everyday conceptual schema, is treated as a valuable resource for both describing attribution processes and constructing psychological theory to explain those processes. Second, attribution theory is built on the distinction between intentional and unintentional behaviour; it is further assumed that intentional behaviour carries much more informational value than unintentional behaviour, with respect to dispositional attribution. Third, it is assumed that dispositional attributions constitute the aim and end-point of the attribution process. Fourth, it is posited that there are two general classes of force that enter into the production of action : person properties and environmental properties; these two classes of attribution operate along the familiar internal-external dimension. Fifth, the co-variation principle is regarded as fundamental to the attribution process. This principle simply states than an effect is attributed to a cause, when that cause is present, and absent when the effect is absent[2].

There are various ways in which some of these points have been built into the experimentation as an assumptive base. The most important way is that the dependent measures, which are usually experimenter supplied constructs, are invariably constructed in terms of the internal-external dichotomy with internal or person causality often being equated with personal dispositions. The failure of attribution research to examine causal concepts which lie at the heart of attribution theory (such as the internal-external distinction), and are inherent in the ordinary person's thinking, is doubly unfortunate and rather ironic considering the purported interest of attribution theory in commonsense and the naive psychologist[3].

Even the research directly testing these models has typically

used the model itself as a conceptual template for designing the dependent and independent variables; hence these experiments test the models only in a rather limited sense. A good example of this is the technique developed by McArthur (1972), which is a popular paradigm for testing Kelley's model. In this paradigm brief descriptions of behavioural episodes are given to subjects accompanied by information concerning consensus, distinctiveness, and consistency (these being the three information dimensions hypothesised by Kelley in his well-known co-variation model). Subjects are then required to attribute the causes of the individual's behaviour to either the person, the entity, or the circumstances (or combinations thereof). Again, these dependent variables are posited by Kelley as the causal attribution targets in his model.

Another example of this tendency to frame the dependent or independent variables in terms of the model, is the way almost all of the research dealing with attributions for success vs failure has utilised the attributions first postulated by Heider as their dependent variables : ability, effort, luck and task difficulty.

The critical point here is that in the preceding ways mentioned attribution research has tended to assume a-priori what the important causal dimensions are, in people's cognitive repertoires. In effect the researchers have relied on the intuitions of the earlier theorists and in so doing have begged a number of important questions. These include what causal dimensions people cognitively utilise, and the nature, type and frequency of attributions as they occur spontaneously in everyday life. In addition, the attribution research suffers from all the other familiar problems of mainstream social psychology that throw its ecological validity into doubt. Virtually all the subjects are college students, while most of the experimental activities are

relatively trivial or non-involving. Also, paper and pencil questionnaire approaches are the most commonly used methodology in attribution research. In short, the external validity of much of this research is weak.

It is not being suggested here that psychologists should not use their intuitions in the process of conceptual analysis or model-building. Indeed, I have argued elsewhere (Fletcher, 1977) that reliance on one's intuitions in the process of conceptual analysis may be regarded as a bona fide technique of psychological investigation. Rather, the argument here is that it appears foolish and perhaps even arrogant to rely exclusively on this single information source for theory construction.

The problems noted above of attribution research are not, of course, confined to attribution research but are shared by mainstream social psychology. These problems can be seen, in part, as stemming from the use of the hypothetico-deductive model, which has been the dominant scientific paradigm in the psychology over the last fifty years or so. In this paradigm the starting point of the scientific process, as far as the empirical investigation goes, is the theory from which are deduced the hypotheses which are then empirically tested. It is of relative lack of concern where this initial theory comes from, and the empirical work is invariably devoted towards testing the hypotheses drawn from the theory.

MacGuire (1980, note 1) argues that much more attention needs to be paid to the process of constructing theories or generating hypotheses. In what he terms the "constructivist" approach, which he proffers as an alternative of the hypothetico-deductive model, MacGuire argues that much more empirical work and subsequent data analysis needs to be of an exploratory nature directed at theory construction.

It was on the above platform of analysis that the current research was based. It was felt the sort of attribution research most sorely needed, was research that examined the structure and content of causal attributions in real-life settings. Accordingly it was decided to collect normative descriptive data, in an exploratory fashion, of attributions in a real-life area of considerable importance to the participants - marital separation.

The above analysis of the nature and restrictions of attribution research of course represents a generalisation which is subject to exceptions. In addition, there has been a tendency, evident over the last three or four years, to move away from the almost exclusive use of a few narrow experimental paradigms in attribution research. First, there is a growing interest in examining more closely the mediating cognitive processes in the attribution process, utilising such techniques as a response-time methodology (Ferguson and Wells, 1980; Smith and Miller, 1979). Second, research utilising factor analysis or multi-dimensional scaling has begun to examine the key question of whether or not the causal distinctions proposed by attribution theorists (e.g. the internal-external distinction) have psychological reality (Michael, Passer, Kelley and Michela, 1978; Passer, 1977, Meyer, 1980, Michela, Peplau and Weeks, 1978, note 2). Third, researchers are beginning to study the occurrence of attributions in spontaneous protocols, or in free responses; these have been carried out both in a laboratory setting (Harvey, Yarkin, Lightner and Town, 1980; Frieze, 1976; Cooper and Burger, 1979, note 3) and in real-life settings (Carroll, 1978; Harvey, Wells and Alvarez, 1978; Dweck, Goetz and Strauss, 1980; Lau and Russell, 1980). Still other researchers have recently examined the consequences of attributions for success and failure, in field settings, utilizing a causal modelling approach (Bernstein, Stephan and Davis, 1979;

Covington and Omelich, 1979).

To sum up, there is evidence that attribution research (probably reflecting a general drift in social psychology) is becoming more eclectic in its methodologies, its statistical procedures and more importantly, its aims. As part of this movement, researchers are beginning to study real-life behaviour and experience, in vivo, more often and with increasing methodological sophistication. The present research can be seen, therefore, as part of a general shift in the zeitgeist of attribution theory and research.

CHAPTER II

Causal Attributions for Marital Separation : An Introduction

As was pointed out in the previous section most of the attribution research, up until recently, has been carried out in laboratory settings, utilising experimenter supplied constructs which have been almost invariably based on the earlier conceptual analysis of Heider (1958), or the later models of Jones and Davis (1965), and Kelley (1967, 1973). Consequently, in spite of the veritable flood of attribution research over the last decade[4], there have been relatively few attempts to examine attributions in real-life settings and a consequent serious lack of normative data concerning the structure and content of everyday explanations.

In an attempt to help redress the balance, the present research examines the structure and content of everyday explanations, as revealed in the verbal protocols of explanations presented by recently separated people for their marriage breakdown and separation. The aim was to tap into extant, rich, explanatory accounts developed naturalistically in a real-life situation. Care, therefore, was taken not to suggest attributions that would otherwise not be mentioned. Respondents were merely asked to say what the causes of their marital separation were, and were asked no other leading questions.

The research has two broad purposes. The first is to evaluate some of the assumptions built into attribution theory we mentioned earlier, in light of the normative data collected. The second purpose is to examine some of the empirical issues concerning attribution researchers that have hitherto been confined almost exclusively to the laboratory.

Taxonomic Descriptions

A Content Taxonomy

To help achieve the above aims it is necessary to develop taxonomies that can describe the free response data in meaningful and illuminating ways. There is a range of possible methods for categorizing the resultant attributions. One method is in terms of semantic content, e.g. communication problems, in-laws, sexual problems, fighting, etc. Previous research has suggested there may be characteristic sex differences in these types of attributions. Levinger (1966) carried out an analysis of interview records of 600 couples, kept by marriage counsellors in Ohio, U.S.A. The results showed that the wives complained significantly more than their husbands of physical and verbal abuse, financial problems, drinking, neglect of home or children, mental cruelty and lack of love; husbands complained more often of in-law trouble, and sexual incompatability. More recently Burns (1979, note 4) in a postal questionnaire study of separated and divorced people in Australia, found that sexual incompatability was more commonly mentioned by men as the single most important cause for the separation, while women more commonly mentioned the husband's drinking and financial problems.

In the present research a descriptive content taxonomy was developed, which attempted to describe the attributions in terms of semantic content. However, although such data is not without interest, this taxonomy would clearly have limited generalizability to other social situations. And this is simply because there is obviously an almost unlimited number of different content types of attribution available to people, according to the social context. If we wish to develop a taxonomy of causes that is generalizable to other social situations, then that taxonomy clearly has to be much more abstract

than the type described above.

An Abstract Taxonomy

Attribution theory provides a number of suggestions concerning some causal dimensions/distinctions that may be important in an abstract taxonomy. The most important of these is the internal-external dimension. As Weiner (1979) has suggested, the internal-external distinction has two quite separate meanings : spatial location (sometimes termed "locus") and control. For example ill-health may be viewed as external in the sense that it is out of ones control, whereas in the spatial sense it is clearly internal. It was decided to use the 'controlability' dimension in the present research[5].

Using a pilot study sample of seven women, whose spontaneous verbal explanations for marital separation were taped, it was discovered that an additional dimension of possible importance concerned the indirectness or temporal position of the attribution. Some attributions were located in the timespan before the marriage took place, e.g. family background, previous experiences, etc. It was therefore decided to separate the external attributions operating during the marriage, and external attributions operating before the marriage (background attributions). Another interesting class of causes coded separately was people's expressed reasons for getting married. To sum up, the following attribution targets were selected for coding the attributions in the sample proper : person attributions, external attributions operating during marriage, external attributions operating before marriage (background attributions), and reasons for marriage; whether the attribution referred to self or the ex-spouse forms an added dimension within each category.

Another important dimension suggested by a number of authors (Weiner, Frieze, Kukla, Reed, Rest and Rosenbaum, 1971; Rosenbaum, 1972) is that of the stability of the attribution. Stable attributions are those that have a high degree of permanence attached to them, e.g. attitudes, needs, personality characteristics, etc. : these are termed dispositions. Unstable attributions are temporary states or qualities, e.g. emotions, images, transitory beliefs, effort : these are termed episodic attributions. In the present taxonomy each attribution was coded as episodic or dispositional.

As previously noted, the concept of "dispositions" is an absolutely key one within attribution theory. However, despite its elevated status there has been little conceptual analysis of the term, nor have attribution theorists (until recently) attempted to distinguish between the different kinds of dispositions there are. The present abstract category system not only distinguishes between episodic and dispositional attributions but attempts a much more fine-grained analysis of dispositions.

The development of this taxonomy is based on the assumption that attributions are "social judgements" and come from the same basic cognitive stock as other social judgements. The most well-developed line of research that has attempted to construct general taxonomic descriptions of social judgements has been that concerned with personality descriptions (Fiske and Cox, 1979; Bromley, 1977). One of the most comprehensive of these taxonomies has been developed by Bromley (1977). Bromley's work is based, in part, on the work of linguistic or common-language philosophers (e.g. Peters, 1958), who have carried out considerable conceptual analysis of everyday language structures. The present taxonomy of dispositions is derived from a number of sources : Bromley's taxonomy, philosophical sources,

attribution theory, and the author's own ideas.

The resultant taxonomy of dispositions will be described in due course. One basic distinction utilised here has been described by the philosopher William Alston (1975). He draws a distinction between what he terms 'purposive-cognitive' dispositions (e.g. abilities, needs, attitudes, etc.) and 'pure frequency' dispositions which are behavioural traits (e.g. domineering, aggressive, etc.). Pure frequency dispositions directly entail that certain behaviours are exhibited, whereas purposive-cognitive dispositions entail no such thing. The reason is that one can entertain an attitude without expressing it, or have an ability without exercising it. Conversely, with pure frequency dispositions the relevant behaviour is part of the necessary criteria for attribution of the concept, and constitutes the meaning of the expression. For example, the necessary criteria for ascribing aggressiveness are that the person behaves in aggressive ways. In turn, to have an aggressive disposition means the person behaves in aggressive ways in appropriate situations. As a beginning point then, it appears necessary to distinguish between these two basic types of disposition.

The above sort of conceptual analysis has important implications concerning the rules of dispositional inference (the relationship between behavioural criteria and dispositional attribution). Reeder and Brewer (1979) exploit a similar form of conceptual analysis to the above, in developing a number of different schemata governing these rules of dispositional inference. To take one example, the hierarchically restrictive schema assumes that those possessing a high degree of the disposition (e.g. skill or ability) are capable of a wide range of performance, whereas those possessing a low degree of the disposition are <u>not</u> capable of reaching a high level of performance. This means that the two forms of behavioural criteria

are asymmetrical with respect to the dispositional attribution. For example a person who paints an outstanding work of art must have high artistic ability, whereas a person who doesn't produce an outstanding work of art may also have high artistic ability. He may simply have had a bad day, or perhaps he is lazy and doesn't try, etc. Reeder and his colleagues have carried out research which suggests that dimensions such as introversion vs extraversion, intelligence vs unintelligence, as well as the more obvious skill dimensions, operate according to this schema (Messick and Reeder, 1972; 1974; Reeder, Messick and Van Avermaet, 1977; Reeder, in press).

To sum up, the argument presented here is that the development of a more fine-grained conceptual analysis and taxonomy of dispositions may be helpful in the development of psychological models dealing with the relationship between behavioural criteria and dispositional attribution[6]. More generally, the development of an abstract generalizable taxonomy of causes may be a useful tool in any attempt to construct a general cognitive model underlying social cognition.

Causal Attributions : Where Do They Come From?

One of the key issues the present research bears on is the question of how causal attributions are generated, and related questions concerning the meaning and nature of causal propositions. The most radical and influential statement in recent years on this topic, has been Nisbett and Wilson's provocative article - "Telling more than we can know : Verbal reports on mental processes" (1977). Nisbett and Wilson's central thesis is that people do not have direct introspective access to the causal determinants of their behaviour. Nisbett and Wilson argue that people do not observe their own higher order cognitive processes in making causal attributions; rather they base such reports on implicit a-priori theories, which are in turn

garnered from one's culture or sub-culture in the form of rules, theories or causal schemas. Hence, instances of accurate causal attribution are not due to direct introspective awareness but the incidentally correct employment of a-priori causal theories.

An impressive array of anecdotal and experimental evidence has been marshalled by Nisbett and Wilson in support of their thesis, from such diverse fields as cognitive dissonance, subliminal perception, problem solving and helping behaviour. They also carried out a series of small studies that purportedly demonstrated people's general inaccuracy in assessing causal relationships. These studies have been criticised on methodological grounds (Smith and Miller, 1978). However, most of the criticism attracted by Nisbett and Wilson's article has been aimed at underlying conceptual and theoretical problems (Smith and Miller, 1978; Rich, 1979; White, 1980; Bowers, in press).

The most serious of these problems, in my view, concerns the intelligibility of the claim that it is logically possible to observe causal processes per se, whether they be in one's head or in the outside world. As Hume pointed out several centuries ago, what one observes are events or states related in certain characteristic spatial and temporal ways. There is no special causal process one observes, over and above these states or events. Nisbett and Wilson do not deny that we may have introspective access to mental events. Ipso facto, their claim that one cannot observe causal processes introspectively is reduced to a logical truism, rather than an empirical claim.

A most illuminating and helpful distinction in this debate, is that between theory driven judgements, and data driven judgements. People's attributions are based both on observations of correlational

data patterns, and also by the operation of cognitive schemas or theories concerning how the world is causally glued together. There is abundant evidence for both these claims, in the attribution literature (McArthur, 1972; Orvis, Cunningham and Kelley, 1975; Cordray and Shaw, 1978; Chapman and Chapman, 1969; Tversky and Kahneman, 1979; Ajzen, 1977). We may therefore agree with Nisbett and Wilson's claim that causal attributions are derived (in part) from implicit a-priori theories. Moreover, their claim that these theories are garnered from one culture or sub-culture appears plausible. Consider, for example, the present case of marital separation. Speculation concerning the causes of marriage breakup is common in the media, with everyone from members of parliament to ministers of religion prepared to offer definitive suggestions; it may well be that in this way, among others, a consensus about the important causes of marriage breakup will emerge to form a socially shared theory of why marriages breakup. If so, then it is reasonable to suggest that people's explanatory accounts of their own marriage breakdown and separation, will be partly derived from this source.

The present research tests Nisbett and Wilson's suggestion that causal attributions are derived from socially shared theories. This was achieved by asking naive raters how important various causal categories (communication problems, physical violence, etc.), are in causing marriages (in general) to breakup. These ratings can then be compared to the actual importance assigned to these causal categories by the marital-separation sample. If Nisbett and Wilson are right there should be a positive significant correlation.

Explanation or Rationalization?

One of the major issues addressed in the present research concerns a question currently an area of hot debate in the

literature, namely, the extent to which people make self-serving or defensive attributions (Miller and Ross, 1975; Bradley, 1978). Marital separation is surrounded by highly normative motions of fault or blame and it often produces emotional distress or bitterness in the participants (Weiss, 1976). Thus, it would seem to be the ideal setting to produce self-serving attributions or rationalizations, rather than dispassionate explanation[7]. A study by Harvey, Wells and Alvarez (1978) is the only previous attempt to examine verbal protocols of explanations for marital separation (to the author's knowledge). Consistent with the self-serving model, they reported that a higher proportion of causal responsibility was placed with the ex-spouse than the self, and that ex-spouse attributions were more negative than self attributions. Their sample, however, was small (n = 12), while the above conclusions appear to have been based on subjective impressions of the explanatory accounts. The present research tests whether the above trends exist with a larger sample (n = 62), and with the help of quantitative data.

It was proposed to test their finding that self attributions are more favourable than ex-spouse attributions, by obtaining social desirability ratings for the attributions from the verbal protocols, from student raters. Other quantitative data was gathered by means of an innovative methodological feature which involves each respondent providing weights, in proportion to the perceived causal importance, for the attributions they initially provided in the verbal protocol. This technique was initially developed in a pilot study with a small sample (n = 7) of separated people.

Subjective Magnitude Estimation (S.M.E.) of Causes Derived from Free Response Protocols

For a number of reasons, the main one being ceiling problems encountered with likert scales, it was decided to use a rating technique known as subjective magnitude estimation (S.M.E.). This technique was pioneered and developed by S.S. Stevens and his colleagues within the field of psychophysics. In the S.M.E. method subjects are asked to assign numbers to a series of stimuli so that the numbers are proportional to the perceived magnitude of each stimulus. The initial number (termed the modulus) is either chosen by the subject or assigned by the experimenter. In either case the subjects construct their own open-ended scales as they proceed. Using this technique Stevens has consistently found that subjective magnitude is a power function of stimulus magnitude, for a wide variety of perceptual continua including loudness, brightness, taste and duration (Stevens, 1975). Moreover, S.M.E. has been used with similar sorts of precision and reliability with social phenomena such as the perceived seriousness of crimes, occupational preferences and aesthetic values (Stevens, 1966). Its use has also been extended successfully to clinical settings in the study of pain, anxiety, psychoactive drugs and medical decision making (Grossberg and Grant, 1978).

After classifying the attributions into the attribution targets previously outlined (self, ex-spouse, external-self, external ex-spouse, background and reasons for marriage), one can then add up the S.M.E. ratings in each category, for each respondent, and convert them into percentages by dividing them by the sum of the total S.M.E. weights. An important point here is that this methodology avoids one of the main problems with a free response methodology. That is, that free response data is at a nominal level,

therefore obliging the use of statistical techniques that are not as powerful as those possible with the interval or ratio level data provided by structured ratings, e.g. likert scales (Elig and Frieze, 1979).

The central problem concerns the validity of the S.M.E. procedure used in this way. When it is used to rate physical dimensions such as light or sound we have of course the perfect objective validating measure available, namely, the actual intensity of these stimuli. In the case of causal attributions no such objective index is available. Accordingly, in the present study a number of indirect validating procedures were utilised including convergent validity and reliability checks.

For various reasons, such as ease and practicality of usage, the S.M.E. procedure developed here differed in several respects from the procedure normally adopted by psychophysicists. In the psychophysics laboratory the subjects perceive only one stimulus at a time and usually select their own modulus, which acts as the reference point for the assignment of weights to the remaining stimuli. In the present technique the causes are ranked first, the subject can see all the causes at once, and the modulus is supplied by the experimenter.

To test whether these differences were important an experiment was conducted with two groups of students ($\underline{n}$ = 11 for both groups), who rated the areas of twelve different sized circles using S.M.E. One group utilised the standard technique described above. The other group used an S.M.E. technique analogous to that used by the marital separation sample, i.e. they ranked the circles in order first and assigned the numeral 1 to the smallest circle as the modulus. The results for both groups showed that the relationships between actual area and estimated area were excellently fitted by power functions, in line with previous research, while the differences between the

groups were slight. This result provides support for the proposition that the slight modifications made to the S.M.E. rating technique in the present study would not unduly distort the results.

Correlates of Attribution Category Percentages

Using these attribution category percentages derived from the causal importance weights assigned to the causes from the free response protocols, it is also possible to examine some of the antecedents and consequents of the attribution patterns produced by the respondents. The antecedants examined included a clutch of socio-demographic variables. These were the sex of the interviewer, the sex of the respondent, the number of years married, the number of months separated, who decided to separate, and education level. A number of personality tests were also included. These were Rosenberg's self-esteem scale, Rotter's internal-external locus of control, and a sub-scale of the I.E. scale measuring personal control. Some of these independent variables were chosen because it was intuitively felt they may have had an impact on the attributions (e.g. length of time separated, number of years married, who decided to separate, etc.). Other variables were chosen because attribution research (albeit in different domains) has shown they do sometimes influence attributions. For example both self-esteem and sex have been shown to influence attributions for success vs failure experiences (Ickes and Layden, 1978; Dweck and Goetz, 1978; Deaux, 1976). However, in keeping with the exploratory nature of the research, no formal predictions were made for the influence these variables might have with the exception of personal control (to be discussed in the next section).

Coping and Causal Attributions

There can be little doubt that marital separation and divorce are profoundly stressful life events that many people find severe difficulty in coping with over an extended period of time (Bloom, Asher and White, 1978). The possibility that attributions for marital separation may influence how people cope with its effects, is examined in the present research. Newman and Langer found in an unpublished study (1977, note 5) that subjects who made interactive or dyadic attributions rather than one person attributions, reported coping better with their post-separation adjustment. Their speculative explanation for this is that the making of interactive attributions enables a better, more sophisticated understanding of the complex interactive forces at work in complex human relationship situations. In turn, they argue, this should lead to a greater feeling of control over future interpersonal endeavours, and a decrease in negative feelings such as self-recrimination, resentment, etc. Their study, however, included only females and the respondents described the major single cause for the separation. The present research tests whether the incidence of interactive or dyadic attributions in the complete explanations offered and the mean causal importance weighting given to such attributions, are related to self-reported coping for both men and women.

Research from other real-life domains suggests that higher self attribution for highly negative outcomes may be associated with better coping. Bulman and Wortman (1977) found that people who suffered serious and unavoidable accidents, coped better if they gave greater causal responsibility to themselves for having the accident. Similarly, in the present research it is hypothesised that those who give greater causal responsibility to themselves, will

report coping better with their separation. The explanation proffered here, for these hypothesised effects, is in terms of the increased feelings of personal control associated with increased self attribution. The companion hypothesis is that those with higher levels of personal control will attribute less to external forces.

Conflicting Explanations

Sociologists' work in the area of marital separation, though not adopting an explicit attribution perspective, has stressed that marriage partners often come to perceive, interpret and explain the events and problems in their marriage from very different perspectives (Weiss, 1976; Bernard, 1972). The final aim of this research is to examine the nature and degree of attribution divergence and conflict, in separated spouses' explanatory accounts. In order to do this, a sub-sample of 24 respondents who had been formerly married to each other was interviewed.

Summary

To summarize the research, the main purpose was to gather some descriptive normative data of attributions in a real-life setting, which could be used to critically examine some key theoretical and empirical issues in attribution theory. In the process it was also hoped to increase our psychological understanding and knowledge of an area of social interaction that frequently causes prolonged human suffering : marital separation.

CHAPTER III

Method

In this section the sample will first be described. Second, the general interview procedure will be outlined. Third, the actual S.M.E. procedure and the method used to derive the attribution category percentages will be outlined. Fourth, it will be described how the reliability check was carried out. Fifth, the dependent measures will be detailed. Sixth, the procedures used for naive raters to rate the social desirability of the self and ex-spouse attributions will be described. Seventh, the content and abstract taxonomies will be briefly described. Lastly, the method used to test Nisbett and Wilson's hypothesis will be detailed.

Sample

The sample consisted of 29 men and 33 women, residing in Hamilton, New Zealand, who had been (physically) separated from their spouse for less than eighteen months. Due to the long backlog of divorce/separation court proceedings in New Zealand, court records were not used to contact respondents. Instead, a wide range of methods were used. Seventeen of the respondents were contacts (e.g. neighbours/acquaintances) of psychology students at Waikato University. Twenty-eight respondents were acquaintances or contacts of the original respondents : twelve of these were ex-spouses of the original respondents. The remaining 17 were contacted through the Hamilton singles' club, the solo parents' club, running a series of advertisements in a local newspaper, appealing for respondents in a radio interview, and by distributing 1,500 letters to apartment buildings and state housing areas in Hamilton.

The mean time of separation was 9.7 months (range : 2 weeks-18 months) and the mean number of years married was 10.17 years (range :

6 months-30 years). All but ten of the respondents had children in their marriage. Eight of the respondents were divorced, 26 were legally separated, and 28 were not legally separated.

General Procedure

Fifty-four of the interviews were carried out in the respondents' homes while the remainder were carried out at Waikato University. There were two interviewers, one male (the author) and one female. The male interviewer interviewed 32 respondents (15 males, 17 females). The female interviewer interviewed 30 respondents (14 males, 16 females). After the respondents were set at their ease they were simply asked to explain in their own words why the marriage broke up, mentioning all the causes that led up to the separation. The interviewer did not ask any further questions except when clarification was required. When the respondents finished the interviewer prompted once with the question : "Can you think of any other causes involved?"

After the interview had finished, the respondent filled out the attribution and the general information questionnaires (described later). The personality questionnaires were left with the respondents to fill out in their own time. In the second interview (between 6 and 12 days later) the S.M.E. rating task was completed and the personality questionnaires were collected.

At this time the interviewee was asked if he/she would mind if we contacted their ex-spouse to take part. If they refused no attempt was made to do this. Of the ex-spouses not interviewed 22 had moved away or could not be traced, 7 respondents refused permission for their ex-spouses to be contacted, and 9 ex-spouses did not agree to be interviewed when contacted.

S.M.E. Procedure : Attribution Category Percentages

Each respondent's taped interview was replayed later by the author (after the 1st interview and preceding the 2nd interview) and each cause was written out in neat long hand on separate slips of paper. Any set of factors that were logically or directly causally linked together in the form of causal chains or dyadic attributions were written out as one unit. Some paraphrasing was required but where possible the actual words the respondent used were transcribed.

For the S.M.E. task (carried out in the second interview between 6 and 12 days after the first interview) the respondents first ranked the causal units in order of importance. They were instructed to discard any causal units they did not think were really causes at all. The mean number of causal units discarded was 2.65. Second, the bottom ranked cause was given a value of 1 by the interviewer and the other causes were assigned numbers by the respondent in proportion to how important he/she felt each causal unit was in causing his/her marital separation. Other examples were used to explain the S.M.E. system and the rating task was begun when the interviewer was satisfied the respondent understood the rating system. Third, each attribution in those causes which contained more than one attribution (e.g. dyadic causes -- we used to fight a lot, or causal chains -- my husband was an aggressive person and that combined with the stress of his work, led him to assault me occasionally), were assigned percentages by the respondent, in proportion to the perceived causal importance of that factor, so that the total summed to 100%. For example, in the dyadic attribution above - we used to fight a lot - a respondent may give 70% of the causal responsibility to his/her ex-spouse and 30% to themselves.

Each attribution was coded into eight categories by the author,

according to grammatical and semantic structure : these categories were -- self, ex-spouse, self external, ex-spouse external, self background, ex-spouse background, self reasons for marriage, and ex-spouse's reasons for marriage. External factors were those operating during the marriage. Background factors were those external causes operating prior to the marriage. For each respondent, the S.M.E. estimates were then added up for each category and divided by the sum of the estimates to produce attribution category percentages. Hence these percentages were a function of the number of attributions in the category and the weights attached to each attribution. For causal units containing more than one attribution, estimates were derived by multiplying the S.M.E. estimate by the percentage weighting given to that attribution (step three above). This method forces a split between the dyadic attributions. For example suppose a respondent gave the attribution -- we fought a lot - a S.M.E. weighting of 40, and said this was caused 60% by her husband and 40% by herself. This would result in causal importance weights of 24 (.6 x 40) being placed in the ex-spouse category, and 16 (.4 x 40) in the self category.

The Reliability Check

Between two weeks and four months after the 2nd interview was completed, the causes from the free response protocols, which had already been assigned causal importance weights, were retyped onto slips of paper and mailed to each respondent with instructions and a request to complete the same S.M.E. rating task as previously done, and mail back in the self-addressed envelope. The respondents did not put their names on these tasks. They were identified by a number placed in a hidden part of the envelope. In addition, and before completing the S.M.E. task, the respondents rated the perceived

importance of each causal unit in causing the marital separation on 9 point likert-type scales printed on the back of each slip of paper (end points labelled very unimportant - very important). They also estimated how much they thought their S.M.E. estimates had changed in the intervening period on a 9 point scale. Sixty-nine percent of the sample mailed back the second set of S.M.E. ratings. Three sets were discarded because the directions were not correctly followed, leaving an n of 40.

Measuring Instruments

(a) Attribution Questionnaire

This questionnaire, which was filled out immediately after the verbal explanation in the 1st interview, consisted of three parts. Part A contained eleven nine point likert-type scales in which the respondents indicated the perceived importance that a number of factors concerned with the self had in causing the marital separation and marriage breakup (end points labelled very unimportant - very important). The factors were : personality characteristics of the self, attitudes and beliefs about the self, self attitudes and beliefs about the ex-spouse, other general attitudes and beliefs of the self, feelings and desires concerning the self, self feelings and desires concerning the ex-spouse, behaviour patterns of the self (e.g. habits), specific actions of the self, lack of effort of the self, experiences before marriage and personal background of the self, and external events and the situation as they affected the self during the marriage.

Part B contained the same eleven factors in the same question format but directed at the ex-spouse and his/her role, in the marriage breakup and subsequent separation.

Part C, the fixed response attribution measure, required the respondent to split up 100 into three parts, giving a score to the

self, the ex-spouse, and external factors, that reflected the importance each category had in causing the marital separation. They were also asked on nine point scales how confident they were of their explanation, how accurate they thought it was, and how much they thought their ex-spouse would agree with it. A complete copy of this questionnaire can be found in Appendix A.

(b) General Questionnaire

This questionnaire was also completed in the 1st interview, after the verbal explanation was taped. It was composed of a range of questions concerning demographic variables : age, educational status (1-6 scale), number of children, time since the physical separation, present marital status and number of years married. It also included questions (on nine-point likert-type scales) on how they felt they and their ex-spouse had coped with their separation, how they felt they related to their ex-spouse and whether the decision to leave was their own, a mutual one, or their ex-spouse's. Finally they were asked whether marriage should be a life-long commitment (nine point scale), as a measure of their attitude to this societal norm.

(c) Personality Questionnaires

These questionnaires were left with the respondents at the 1st interview. They were completed in their own time and collected at the 2nd interview. They consisted of Rotter's internal-external locus of control scale (Rotter, 1966) and Rosenberg's self-esteem scale (Rosenberg, 1965). Rosenberg's self-esteem scale was scored using the 1 to 4 scale for each item, rather than the Guttman scaling. As indicated previously, a personal control sub-scale (five items) was also derived from Rotter's 29 item scale. This sub-scale, representing personal control, was found to represent a clear factor in Gurin, Gurin, and

Morrison's (1978) factor analytic study using a large national probability sample. These authors also provided evidence for the discriminant and convergent validity of this personal control factor.

Social Desirability Ratings

All the self and ex-spouse attributions made by the respondents were collected together and one hundred attributions from each of the following four groups were randomly selected in such a way that each respondent was equally represented : self attributions - male respondent, ex-spouse attributions - male respondent; self attributions - female respondent, ex-spouse attributions - female respondent. Pilot testing showed that naive raters were confused when they rated self attributions for social desirability. It was intended that raters would make social desirability judgements on the face value of the attribution. However, in discussion with raters it became clear that sometimes they rated negative self attributions (e.g. I was a hopeless mother) as positive, on the grounds that they represented self-honesty; conversely they sometimes rated positive self attributions as negative because they showed vanity or boastfulness. To deal with this problem all the self attributions were converted to ex-spouse attributions e.g. "I was a hopeless mother" was rephrased as, "she was a hopeless mother". A record was kept of which attributions were self attributions. All the 200 male attributions were divided into ten booklets of 20 attributions, each booklet containing 10 self attributions and 10 ex-spouse attributions. The 200 female attributions were also divided into ten booklets of 20 attributions. Each rater thus rated 20 attributions. The raters were given the following instructions:

"On the following pages you will read a number of statements about people. These statements are all about people within a marriage relationship. Hence the words 'he' and 'she' always refer to the wife

or husband in that relationship. For each statement think for a moment about what is being ascribed to that person, and judge how favourable or desirable that ascription is. Rate each statement by circling a number on the accompanying scales. It is important that you take each statement at its face value. That is, you are to assume that each statement is true and factual."

Each attribution was accompanied by a nine-point scale marked with -4 (very undesirable or unfavourable) and +4 (very desirable or favourable) at the end-points, and 0 (neutral) representing a neutral category in the middle. The 20 booklets of 20 attributions were rated by 20 2nd-year psychology student raters. The male attributions were rated by 5 males and 5 females; the female attributions were also rated by 5 males and 5 females. The dependent variable consisted of the mean score computed from each set of self and ex-spouse attributions for each set of 10 attributions.

Content Taxonomy of Causes

Table 4 shows the content categories derived from the verbal protocols. These causes were first placed within the general categories of person attributions (self or ex-spouse), external attributions, background attributions, and reasons for marriage attributions. This taxonomy was developed in an inductive fashion by the author, with no particular preconceptions in mind. It was discovered that many attributions were personality characteristics, general attitudes and the like, that did not easily fit into any content area. It was therefore decided to place items in these general catch-all categories only if they did not fall into one of the content areas. These general categories (see Table 4) were general personality characteristics, specific personality characteristics (e.g. habits), actions or reactions, other wants, and other attitudes

and beliefs - not towards spouse. For example attributions such as, "he was no good with money" or, "he had a chronic attitude to work" would be put into the 'money' and 'work' categories respectively, whereas "she was insecure" would be put into the general personality characteristic category. For those causal units where attributions from different categories were present, the causal units were placed in the category for which the associated attribution was given the highest weighting.

Note that the attribution target is also represented in this taxonomy. Some of the attributions are background attributions, some are external, while the remainder are personal attributions (self or ex-spouse). For a more detailed description of these category headings with examples see Appendix B.

Abstract Taxonomy of Causes

Unlike the content taxonomy, this taxonomy was developed with the pilot data with each respondent's attributions being coded as the data was collected. The category headings can be seen in Table 5. As with the content taxonomy, the attributions were first placed in the general categories of person attributions, external attributions, background attributions, and reason for marriage attributions. In the present taxonomy, however, external attributions were simply coded as referring to persons, or circumstances. Also, the background attributions were grouped together under one heading. Semantic and syntactic cues were used to place each attribution in the appropriate category. For a detailed description of these category headings see Appendix C.

Test of Nisbett and Wilson's Hypothesis

First, the categories of the content taxonomy were re-organised

and simplified with a number of items being collapsed together. Second, the top ten categories, for men and women separately were collated in terms of S.M.E. rank weighting. The same procedure was followed to collate the 10 (ten) categories in terms of the percentage of respondents mentioning the category, for both men and women. This resulted in 19 categories, shown in Table 6. These categories were presented to a 1st year psychology class. They were asked, first, to assess the percentage of marriage break-ups in N.Z. in which each category would be a causal factor. Second, they were asked to rank the causal categories in order of the importance (from 1 to 19, using each numeral) they would have had in those marriages where they were a factor in the first place. The few separated and married people were deleted from the sample, leaving an n of 27 single men and 30 single women.

CHAPTER IV

Results

How valid is the S.M.E. technique?

Convergent Validity

Correlations among the three attribution measures used (category scale, fixed response percent and free response percent) for self, ex-spouse and external factors are shown in Table 1. The category figures were obtained by summing the relevant category scales from parts A and B of the attribution questionnaire. To calculate the free response percentages the two external categories were added together, while the denominator only included the self, ex-spouse and external categories. The fixed response percent measure, it will be recalled, required the respondent to divide 100 into three parts representing the causal responsibility attached to the self, the ex-spouse and external factors during the marriage. The convergent correlations are all significant, the correlations between the two ipsative measures being the highest.

Reliability Check Correlations

Separate correlations for each respondent who posted back the 2nd S.M.E. ratings (n = 40), were computed between the 1st and 2nd S.M.E. ratings. The mean correlation, obtained by transforming to Fisher's z scores and back again, was .51 with a mean df of 23 ($p<.001$). Many respondents used quite different scales, the top S.M.E. ratings differing by a mean factor of 3.99.

In the reliability check, respondents were also required to rate the perceived causal importance of each causal unit using likert type scales. As might be expected, considering the two tasks were carried out contiguously, the mean correlation across respondents between the second S.M.E. ratings and the category causal importance ratings of the

Table 1

Correlations Among the Three Attribution Measures

	Category			Fixed Response %			Free Response %		
	Self	Ex-spouse	Ext.	Self	Ex-spouse	Ext.	Self	Ex-spouse	Ext.
Category									
Self		.11	-.13	.42***	-.29*	-.12	.40***	-.01	-.45***
Ex-spouse			.26*	-.31**	.24*	.06	-.38***	.41***	.02
External				-.40***	-.04	.49***	-.35**	.17	.27*
Fixed Response %									
Self					-.64***	-.51***	.60***	-.34**	-.34**
Ex-spouse						-.51***	-.32**	.52***	-.19
External							-.28*	-.12	.62***
Free Response %									
Self								-.70***	-.52***
Ex-spouse									-.24*
External									

Note: The convergent validity correlations are shown in between the diagonals.

*$p < .05$

**$p < .01$

***$p < .001$

same causal units was .60 ($p<.001$). However, the correlations between the category ratings and the first S.M.E. ratings were also high and positive ($r = .56$, $p<.001$), indicating that this former correlation is not merely an artifact of the methodology.

Respondents' self reports of change in their causal importance judgements were correlated with their individual correlations between the 1st and 2nd sets of S.M.E. ratings (converted to Fishers z scores). The resultant correlation of - .36 ($p<.05$) shows that respondents who reported more change had lower correlations between their 1st and 2nd set of S.M.E. weights. This suggests that respondents were aware of shifts that occurred in their causal importance judgements, over the two occasions. The mean reliability correlation and the other correlations mentioned here give further moderate support to the validity of the S.M.E. technique.

The Relationship between the Category and S.M.E. Estimates

A persistent finding of the S.M.E. research is that on intensity or prothetic continua ('how much' rather than 'what kind'), arithmetic means of the category scale estimates when plotted against geometric means of the S.M.E. estimates produce a characteristic concave curve (this is the case for both perceptual and social phenomena). This characteristic curve is generally held (Stevens, 1966) to be a feature of prothetic continua (the reasons for this relationship are, in fact, a matter of some controversy - see Poulton, 1979). It will be remembered that our reliability check sample ($n = 40$) used both a likert category scale, and the S.M.E. technique for the causal importance ratings of each cause. If these respondents are treating causality on a prothetic continuum, as we would want them to, then the relationship between the data yielded by these two rating techniques should be a concave curvilinear one.

To obtain mean geometric scores across S.M.E. ratings the respondents were divided into two groups; those who had 12 or more different numerical S.M.E. ratings (n = 21) and those who had less than 12 (n = 19). In the former group each respondent's set of S.M.E. estimates was placed in order from lowest to highest, and both the S.M.E. estimates and category scale estimates that coincided with each successive twelfth interval were recorded. The same procedure was followed for the latter group but utilising one fifth intervals. Some such method as the above is necessary to obtain means across respondents, simply because respondents rated widely different numbers of causes. The respondents were divided into two groups for two reasons. First, to reduce everyone's ratings to five intervals would have severely reduced the power of the subsequent statistical check of the existence of a quadratic component. Second, it was felt to be important to test the existence of a curvilinear relationship for both respondents who rated many causes, and respondents who rated relatively few.

The results of plotting the arithmetic means of the category estimates against the geometric means of the S.M.E. estimates are shown in Figure 1. In both cases, the predicted concave curvilinear curve was obtained. The quadratic component for group two was significant, F (1,9) = 8.49, $p<.05$. The quadratic component for group one's curve was not significant, though the quadratic component has been included in plotting the curve in Figure 1. In both groups, the regression lines provided a close fit to the data points (Group 1 Mult. R = .99, Group 2 Mult. R = .94).

To sum up, the above evidence collectively provides moderately strong support for the validity of the S.M.E. technique, and suggests that the S.M.E. weights and the derived attribution category percentages are psychologically meaningful.

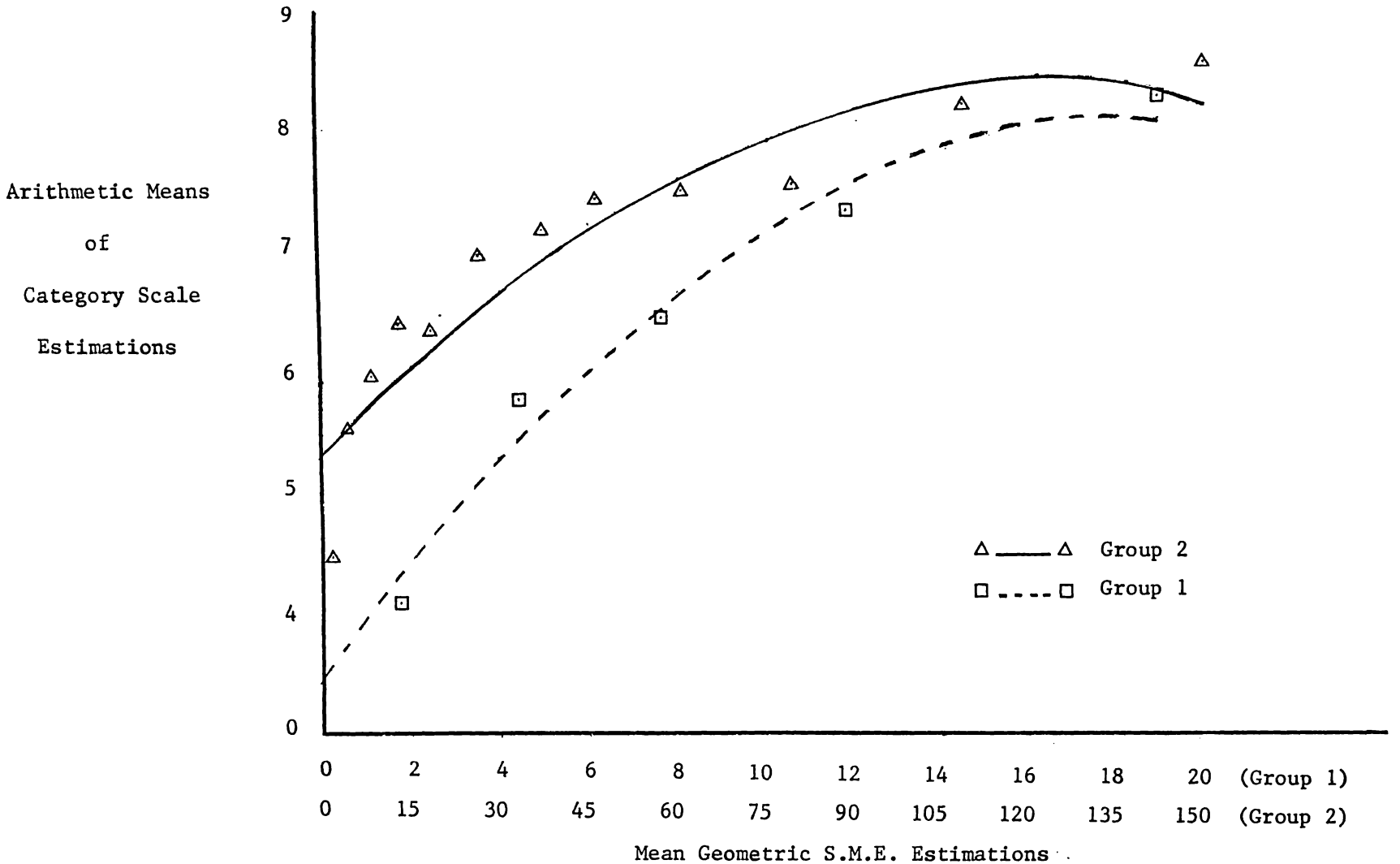

Figure 1. Category causal importance ratings plotted against S.M.E. causal importance estimations for Group 1 (five data points) and Group 2 (twelve data points).

Attribution Category Percentages

The attribution category percentages were derived from the causal importance S.M.E. weights assigned by respondents to the causal attributions, from the verbal protocols. Table 2 shows the mean attribution category percentages and the mean number of attributions for each category. As a reliability check, attributions from 15 of the respondents (276 attributions) were coded into these categories by the female interviewer, after a brief training period. A reliability of 91% was attained, which is satisfactory. The author's coding was used for all analyses.

The sex of the interviewer proved to have a strong effect on the attribution category percentages for self and ex-spouse, which varied according to the respondent's sex. Figure 2 depicts the relationships between these three factors. As can be seen, the male interviewer produced fairly consistent results across sexes with self percentages lower than ex-spouse percentages. However the female interviewer appeared to produce strong differences across sexes. The males interviewed by her gave higher self percentages (41.1%) than ex-spouse percentages (36.5%), while the females went very strongly in the reverse direction (self $\underline{M}$ = 24%, ex-spouse $\underline{M}$ = 52.8%). A 2 (sex of interviewer) x 2 (sex of respondent) x 2 (attribution category) unweighted means ANOVA was performed, the last factor being a repeated measure. The main effect for attribution category was significant, $\underline{F}$ (1,58) = 12.95, $\underline{p}<.001$, while both the sex of respondent x attribution category interaction, $\underline{F}$ (1,58) = 4.8, $\underline{p}<.05$, and the three way interaction, $\underline{F}$ (1,58) = 5.57, $\underline{p}<.05$, were significant.

Comparisons (dependent $\underline{t}$ - tests) between the four sets of means depicted in Fig. 2 were carried out; these showed that the mean ex-spouse percentages of both male and female respondents interviewed

Table 2

Mean Attribution Category Percentages and Mean Number of Attributions for Each Attribution Category

	Male Respondents (n = 29)		Female Respondents (n = 33)	
	%	No.	%	No.
Self	35.4	9.3	28.1	10.6
Ex-spouse	40.9	11.1	49.2	16.1
Self External	7.5	2.6	8.3	3.2
Ex-spouse External	8.6	2.9	5.9	2.1
Background Factors	5.6	1.9	7.2	2.1
Reasons for Marriage	2.1	0.3	1.2	0.5
Mean Total		28.1		34.6

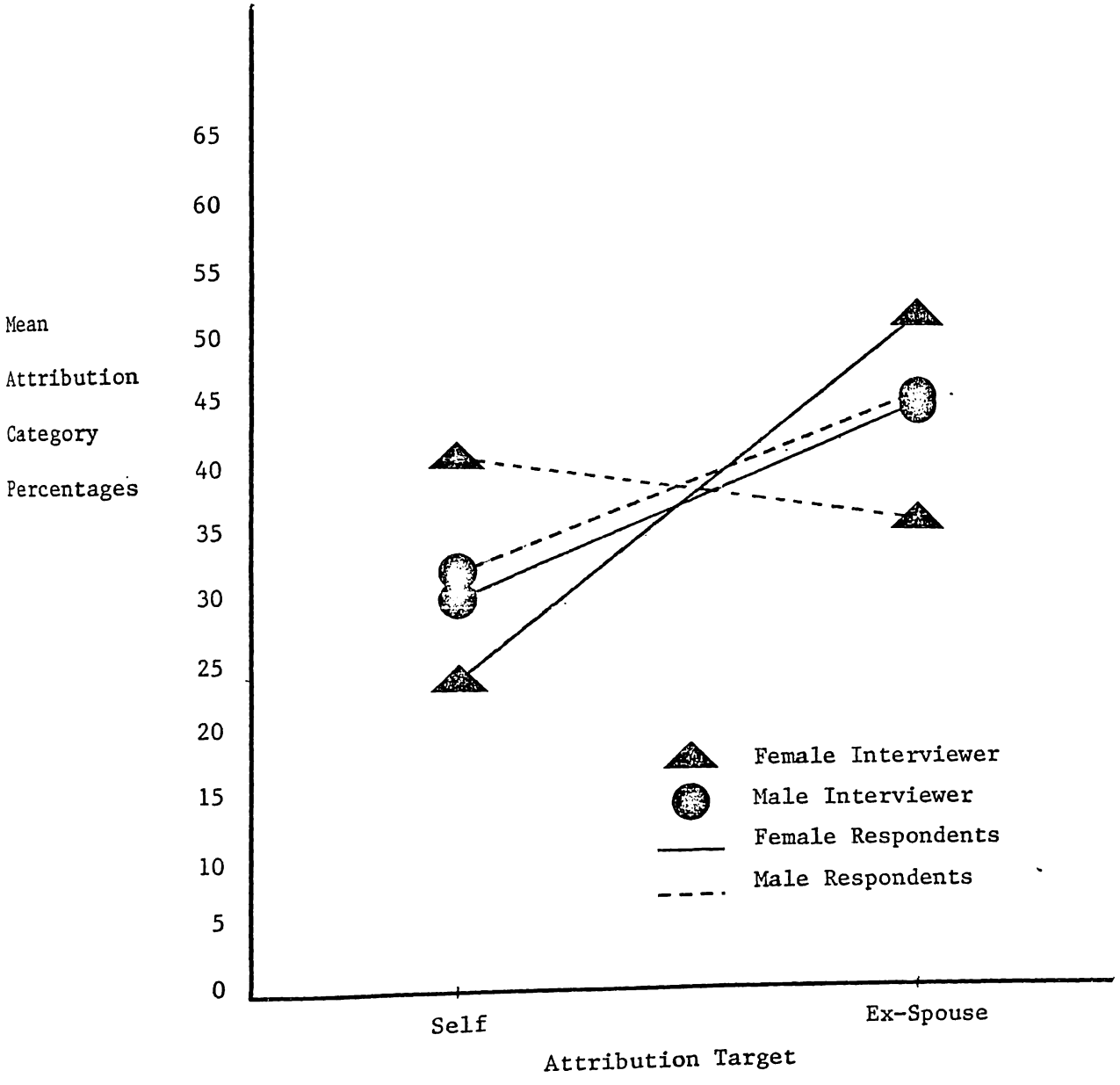

Figure 2. Self and ex-spouse attribution category percentages for male and female interviewers and respondents.

by the male interviewer, were significantly higher than the mean self percentages, at the $p<.05$ level (males - t (14) = 2.01; females - t (16) = 1.96). Similarly, the mean ex-spouse % of the respondents interviewed by the female was significantly higher than the mean self %, t (15) = 5.45, $p<.01$. The only set of means not significantly different were those which ran opposite to the predicted direction, namely, the male respondents interviewed by the woman, ($t<1$). Hence, the general tendency was to give lower causal responsibility to the self than the ex-spouse.

Respondents also rated the causal responsibility given to the self and the ex-spouse in two types of structured ratings : likert-type 9 pt. scales and ipsative % scales. Statistical analyses of both these structured ratings revealed the same significant tendency to give more causal responsibility to the ex-spouse than the self[8]. Consistent with these findings an exploratory factor analysis of the whole set of structured likert ratings (Parts A and B of the attribution questionnaire) showed that the most important factor to emerge (accounting for 18.3% of the variance) was clearly one representing the ex-spouse's personality and behaviour[9]. Overall, it is clear that there was a marked general tendency to give more causal responsibility to the ex-spouse than the self.

Favourability Ratings For Self vs Ex-Spouse Attributions

A related prediction to the above finding was that the ex-spouse attributions would be less favourable or negative than self attributions. Recall, that these attributions were rated for social desirability by student raters. Using the raters' mean scores for each set of self and ex-spouse attributions as the dependent variable the following mean scores resulted (the higher the score the more positive the attributions) : self attributions, female respondents =

4.9; ex-spouse attributions, female respondents = 2.9; self attributions, male respondents = 4.1; ex-spouse attributions, male respondents = 3.8. The differences were in the predicted direction, self attributions being more positively rated than ex-spouse attributions. This difference was highly significant for female respondents, t (18) = 5.6, $p<.001$, but insignificant for the male respondents ($t<1$). This analysis indicates that there was a tendency to make more favourable attributions for the self than the ex-spouse, though this tendency was much more marked for the female respondents than the male respondents.

Correlates of Attribution Category Percentages

A series of multiple regression analyses was used to analyse the relationship between a range of independent variables and each attribution category percentage. The independent variables were entered in a predetermined order in a series of sets shown in Table 3. In the self attribution category, the sex of the interviewer and the sex of interviewer x sex of respondent interaction, were partialled out. Prior statistical analysis showed this was unnecessary for the other categories.

The sets of variables were placed in this particular order on a-priori grounds. Namely, it was thought that such factors as sex, the number of years married, who decided to leave, etc. would have some causal priority over attitudinal and personality variables. This approach partials out all variables entered prior to any specific set of interest. If a particular set significantly increases the multiple R, then it becomes justifiable without incurring excessive Type 1 error to calculate the individual contribution of each variable in that set (Cohen and Cohen, 1975)[10].

Table 3

Hierarchical Multiple Regression Analyses with Three Free Response Attribution Category Percentages as the Dependent Variables

Independent Variables	Dependent Variables: Self %			Ex-spouse Ext. %			Background %		
	Mult.R	Beta	Zero-0	Mult.R	Beta	Zero-0	Mult.R	Beta	Zero-0
Set 1									
Sex of Interviewer(A)	.05	.39*	.05						
Sex of Respondent(B)	.22	-.09	-.22	.14	.11	-.14	.09	-.01	.09
A x B	.34*	-.53*	-.23						
Set 2									
Months separated	.35	-.13	-.05	.15	.04	.06	.10	.17	.03
Years married	.35	.12	.00	.28	.18	.24	.17	-.22	-.12
Set 3									
Own decision	.51	.11	.22	.50	-.14	-.43**	.18	-.16	.01
Mutual decision			.06			-.11			.14
Spouse's decision	.56**	-.46*	-.27*	.58**	.48**	.53**	.22	-.25	-.12
Set 4									
Education	.57	.00	-.04	.59	-.13	-.14	.36	.38**	.25*
Self-esteem	.59	-.20	-.16	.60	.08	-.07	.45	-.22	-.14
Personal control	.60	.13	.23*	.60	-.04	-.23*	.52	-.31*	-.24*
Allegiance to norm	.61	.14	.02	.60	-.04	.18	.53**	-.12	-.18

Note. Sex of A and B were coded M=0, F=1. Set 4 variables were all scored in a positive direction. Set 3 variables were all coded Yes=1, No=0. This system of coding means that all information is carried by two groups, the third reference group (mutual decision) being represented by two zeros. Thus no Multiple Rs or Beta weights are shown for this group. Whether each set significantly increases the Multiple R is indicated by the presence of asterisks in the last variable of each set in the Mult. R. columns. All other variables are scored in a positive direction.

Mult. R: Multiple R

Beta: Beta weight

Zero-0: Zero-order R

*$p < .05$

**$p < .01$

The only attribution category percentages to obtain significant shrunken multiple R's are shown in Table 3, together with their respective Beta weights and zero-order correlations. These categories were the self %, ex-spouse external %, and background % categories. The Beta weights were calculated with all variables entered in the equations. The zero-order correlations were all 2-tailed except for the personal control r's for which predictions were made. For all other attribution categories only one of the zero-order correlations and one of the Beta weights attained significance levels, while most were remarkably close to zero. The exceptions were a zero-order correlation of .25 ($p<.05$) between self-esteem and the ex-spouse attribution category, and a Beta weight of .39 ($p<.05$) between education level and the reasons for marriage attribution category, i.e. those with higher self esteem gave more causal responsibility to their ex-spouse, while those with higher education levels gave more causal responsibility to the reasons for getting married.

Because set 3 (the who decided to leave set of variables) produced a significant increase in the Multiple R for the self % and ex-spouse external % dependent variables, it is justifiable to compare the means of the three decision groups for statistical differences. Partialling out all other variables the adjusted means for the self % category are : own decision = 40.07%, mutual decision = 36.49%, ex-spouse decision = 20.62%. Using procedures and equations outlined by Cohen and Cohen (1975), the ex-spouse decision mean is significantly different from the mutual decision mean ($p<.05$) and the self decision mean ($p<.001$). No other differences are significant. The adjusted means for the ex-spouse % category are : own decision = 2.22%, mutual decision = 4.9%, ex-spouse decision = 14.47%. The ex-spouse decision mean is significantly different from the mutual decision mean ($p<.01$), and the self decision mean ($p<.001$). No other differences are

significant. The I-E scores, not shown in Table 3, attained insignificant zero-order correlations and for the self % D.V. was opposite to the expected direction, i.e. those who were more external gave more causal responsibility to themselves. The one exception to this pattern was a correlation of .28 ($p<.025$) with the background attribution category percentage. This showed, that those who were more external gave a higher background %.

To summarise these findings, who decided to leave clearly had the most powerful impact on the attribution category percentages. Those who were left gave significantly less causal responsibility to themselves and more to external factors influencing the ex-spouse. The other findings of interest were, (a) that those with higher education levels gave significantly more causal responsibility to background factors and reasons for getting married, and (b) as predicted those with higher levels of personal control gave more causal responsibility to themselves, and less to external factors.

Coping with Marital Separation

The only variables to attain significant zero-order correlations with self-report of coping were sex of respondent, who decided to leave and self-esteem. When partial regression coefficients were computed for these variables, self esteem remained a significant factor, F (1,57) = 4.71, $p<.05$, sex was close to significant levels, F (1,57) = 3.82, $p<.10$, but the who decided to leave variables dropped to trivial levels. These results show that women, and those with higher self-esteem reported coping better.

To determine whether the attribution percentages influenced coping over and above the effects of self-esteem and sex, these two variables were partialled out in computing partial regression coefficients for each attribution category percentage. None was

significant or approached significance levels. The same procedure was utilized with the data from the fixed response percent question (where the respondents divided 100 into self, ex-spouse, and external factors, to represent the causal responsibility of each factor). Using this data it was found that those who gave higher causal responsibility to self coped better, F (1,58) = 3.29, $p<.10$, while those who gave higher causal responsibility to the ex-spouse coped significantly worse, F (1,58) = 5.4, $p<.05$. The same analysis was also carried out on scores summed from the likert ratings, but these results did not approach significance.

Overall, then, the results give only weak support to our hypothesis that those respondents who gave more causal responsibility to themselves would report coping better.

The next hypothesis to be tested, which was drawn from Newman and Langer's (1977, note 5) work, was that those who used more interactive and dyadic attributions or gave these attributions higher causal importance ratings, would cope better. The number of dyadic/interactive attributions, was added up and also the mean weighting assigned to these attributions, using the S.M.E. scores converted to z scores, were computed. Neither the number of interactive attributions nor the mean z score weightings when correlated with self-report of coping approached significance levels, for either men or women. Hence, Newman and Langer's hypothesis was not supported here. It should be noted here that this type of attribution was common, the mean percentage of the total number of causal units being 30.5%.

Married Couples Group

It will be recalled that 24 respondents in our sample were married to each other. One of the aims of the research was to examine the nature and extent of the attribution divergence and conflict of

this group. First, correlations were computed across the male and female dyads for each item on the category, fixed response percentage and free response percentage scales. With one exception, which indicated disagreement (r = -.68, p<.01), all correlations were non-significant. Correlations within each couple were also computed across the 22 category scales of the attribution questionnaire (Sections A and B). These ranged from -.24 to .58, with three being significant in a positive direction. Hence, there is evidence of relatively strong individual differences in the extent to which couples agree in their attributions.

Agreement between the couples on who decided to leave was near perfect with only one couple disagreeing. There were also moderately high correlations between the self reported levels of coping and how their ex-spouse claimed they were coping, with women being more accurate than men (r = .58, p<.05 as against r = .30, p<.20).

The couples' free response explanations were compared by examining all attributions around the same themes. Twenty-five percent of the total number of causal units, across couples, were on similar themes. These units were placed into three categories for each couple according to the degree of agreement in the content of the causes : (a) good agreement, (b) moderate agreement and (c) disagreement. A second rater (Dr. N. Hamid), using the same scale, and no prior training, also rated the themes, with a resultant correlation of r = .60 (p<.01). Taking the mean judgements of both raters, 38% of the themes were in good agreement, 34% in moderate agreement, and 28% were in disagreement (n = 38). This data gives some idea of the degree to which the ex-married couples explanatory accounts diverged. All the causes which were on similar themes are shown in Appendix E. As can be seen the causes diverged in a number of ways. The attribution targets were frequently different, e.g., both couples attributing the

problem to each other, or one person making a dyadic attribution with the other partner making an ex-spouse attribution. Also, the attributions often differed on the amount of detail included. Overall, considering that respondents were selecting attributions from a limited pool of themes, the amount of agreement can be considered low.

Descriptive Taxonomies

Content Taxonomy

The data from the content category taxonomy are shown in Table 4, using the author's coding. The data here are nominal, i.e., each respondent was coded as either using or not using an attribution in each category. The rank weights were derived by first calculating *z* score weights for each respondent's set of S.M.E. weights. The mean weights were calculated from these standardised weights for each category. To test the reliability of this category system a second rater (Mr D. Aukett) was supplied with a description of the taxonomy, which consisted of a list of the category headings with descriptions and examples (see Appendix B for a copy of these content coding taxonomy instructions). After being given a short training session, he coded 167 randomly selected single attributions, achieving a reliability of 76.65%. This figure is satisfactory considering the large number of categories involved.

There are a number of interesting features of these results shown in Table 4. First, it should be noted that items were coded into general abstract categories like personality characteristics, actions etc., only after it was found they did not fit into any of the content categories. Despite this, it can be seen that these catch-all categories still attained high percentages. Second, there are some intriguing sex differences in the percentages of males and females who mentioned the different categories. Men mentioned, significantly

Table 4

Percentage of Respondents Mentioning Content Causal Attribution Categories and the Mean Importance Rank of Each Category According to S.M.E. Causal Importance Weights

	Males (n=29)		Females (n=33)	
	Percent	Rank weight	Percent	Rank weight
General personality characteristics	86	13	85	10
Specific personality characteristics (e.g,habits)	76	10	61	17
Negative attitudes etc. to each other	72	5	58	5
Actions or reactions	59	24	39	18
*Extramarital sexual relationships	55	4	24	19
Desire for freedom; other wants	48	2	49	7
*Ext circumstances/experience (ext)	48	23	21	31
Relationships with children	41	22	64	27
Influence of in-laws (ext)	41	9	30	13
**Self and ex-spouse attitudes (back)	41	-	6	32
Sex role stereotypes	38	17	40	25
Sex, physical affection	38	1	42	12
Influence of job (ext)	38	16	30	21
Work/employment	35	19	42	21
Finance/money	35	6	33	20
Love, feelings of affection etc.	35	10	24	9
Outside activities	35	18	51	24
Communication	35	3	58	2
Family background (back)	35	15	48	14
Platonic relationship with other people	31	21	55	27
Influence of children (ext)	31	11	39	6
Age at marriage (back)	28	25	24	15
Restriction of spouse's/self's activities	24	20	33	11
Other attitudes and beliefs-not toward ex-spouse	24	7	30	1
Financial stress (ext)	24	8	15	20
Physical/mental health (ext)	24	14	33	14
**Increasing awareness,sudden realizations, changing expectations concerning marriage	21	12	60	4
Arguments/fights	21	-	36	16
Reasons for marrying	21	-	19	8
*Alcohol/drinking problems	17	-	46	8
*Influence of others (e.g.counsellors)(ext)	17	-	49	23
Relationship prior to marriage (back)	17	-	30	26
Influence of friends (ext)	14	-	33	22
Not helping around house	10	-	15	28
Depression, anxiety etc.	7	-	24	14
General Background factors (back)	7	-	27	19
Other person in extra-marital affair (ext)	7	-	15	-
**Violence	3.5	-	30	3
Self-deception/wishful thinking	0	-	15	-
Uncodable	14		33	

Note: Causal attribution categories marked with asterisks have significantly different distributions of percentages across sexes, as measured by 2x2 chi squares (with a correction for continuity). Categories marked with a dash in the rank weight column did not reach an n of 6.

ext : external attributions
back : background attributions

*$p < .05$
**$p < .01$

more often than women, : extramarital sexual relations, external circumstances and/or outside experiences, and background attitudes of self or ex-spouse. Women mentioned, significantly more often than men, : increasing awareness, sudden realizations, changing expectations, etc., alcohol drinking problems, external influence of other people, and husband's violence. These differences will be discussed more fully in the discussion section.

Abstract Taxonomy

The data from the abstract taxonomy are shown in Table 5. As a reliability check, attributions from 15 of the respondents (276 attributions) were coded into these categories by the female interviewer, after a brief training period. (A description of this taxonomy, with examples is shown in Appendix C.) A reliability of 79.86% was attained. This figure indicates that semantic and grammatical features can be reliable indicators in distinguishing between the range of abstract attribution categories shown in Table 5. The author's coding was used for all subsequent analyses.

Each respondent's data, summarised in Table 5, was converted to percentages of the total number of attributions. These percentages, in turn, were correlated with sex, education level, months separated and number of years married. Most resultant correlations were insignificant, with some interesting exceptions. Those respondents who used a significantly greater percentage of action attributions (using 2-tailed correlations) were men (r = .29), those with lower education levels (r = -.33), and those who were married for a shorter period (r = -.26). Those with lower education levels also used fewer background (r = .32) and reasons for marriage attributions (r = .25). Women (r = -.25) and those who had been separated longer (r = .3) used more knowledge attributions. Finally, those who were married longer used more emotion and feeling attributions (r = .4)[11].

Table 5

Mean Attributions in Each Abstract Category

Category	Mean (n=62)
Specific Personality Characteristics (e.g. habits)	6.2
General Personality Characteristics	5.3
Attitudes	3.4
External During Marriage-Circumstances	2.8
Specific Actions	2.7
External During Marriage - Persons	2.5
Wants/Needs	2.2
External - Before Marriage (Background)	2.1
Beliefs	1.3
Emotions/Feelings	1.0
Knowledge (awareness, realizations, etc.)	0.6
Ability	0.5
Reasons for Marriage	0.4
Episodic Internal	0.3
Effort	0.2
Physical Appearance	0.1
Uncodable	0.1

Note: All attributions are dispositional except for episodic internal and specific actions.

Nisbett and Wilson's Hypothesis

The hypothesis put forward by Nisbett and Wilson, being tested here, is that people's explanations for marital separation are derived from socially shared knowledge or theories. To test this hypothesis, a re-organised simplified version of our content taxonomy (see Table 6) was rated by naive student raters in terms of the importance of each category. The general question of how important a particular causal category is in causing marital separations has two separate components : (a) In how many marriage breakups is this category a causal factor in?, and, (b) If this category is a causal factor in a marriage break-up how important is it likely to be? The answers to these two questions do not necessarily coincide. For example one may regard physical violence as relatively rare in causing marriages to break up but a powerful and important cause in those marriages where it is a causal factor. Accordingly the naive raters were asked to make two sorts of judgements. First, they were asked to estimate the percentage of marriage breakups in which they thought each category would be a causal factor in N.Z. Second, they ranked the causal categories in terms of how important each causal category would be in the marriages where they were first present.

The first question to be considered here concerns whether the naive raters tended to agree about the percentages and causal importance ranks they assigned to the causal categories. If they did not, then there would be no evidence that a socially shared theory concerning the causes of marriage breakup actually exists. If the naive raters tend to agree about the importance of the categories then the sd's should be smaller than one would expect from a random generation of the ratings. The sd of the numbers from 0 to 100 is 29.15. If the percentage figures are randomly generated then 50% of the category sd's (across raters) should be above that figure and 50% below. In fact, of the male naive raters none was above that figure, and of the female

naive raters only one was above that figure. Both these tendencies were highly significant (males - χ^2 (1) = 17.05, $p<.001$; females - χ^2 (1) = 13.47, $p<.001$). The same procedure was used to examine the ranking data. The sd of the numbers from 1 to 19 is 5.477. Of the female naive raters none of the category sd's was over this figure, while of the male naive raters only two were above this sd. Again both tendencies are highly significant (males - χ^2 (1) = 10.31, $p<.001$; females - χ^2 (1) = 17.05, $p<.001$). This analysis indicates there was a significant amount of agreement within the male and female naive rater groups, concerning the importance of these categories.

How do the naive sample ratings compare with the marital separation sample data? First, the percentage naive rater data was converted to mean percentages for each category across the male and female groups. There was considerable agreement between the male and female naive raters, their two sets of mean %'s, having a rank correlation (Spearman's Rho.) of .89 ($p<.001$). The male and female % data were combined and are shown in Table 6, next to the actual %'s attained by the marital separation sample. The mean male and female naive raters' %'s were rank correlated with the actual %'s of categories mentioned in our marital separation sample. In both cases the correlations were negative and insignificant. The rank correlations between the % data and the mean causal importance ratings were illuminating. Both these rank correlations for male and female groups of the marital separation sample were low and insignificant. Conversely the rank correlations within the male and female naive rater groups were positive and highly significant (males $r = .94$, $p<.001$; females - $r = .79$, $p<.001$). Evidently the naive raters were judging the % of marriages affected by a given cause, by the same criteria they were using to judge the importance that each cause would have in those marriages where it was present in the first place; both judgements may very well stem from

Table 6

Percentage of Separated Respondents Mentioning Each Causal Attribution Category and their Mean Ranked Causal Importance Weights for Each Category Compared to the Mean Naive Raters Estimates

	Causal Attribution Category	Percentage of Separations where Category was Cited as a Cause		Mean Ranked Causal Importance Weights			
		Separated Sample	Mean Naive Raters' Judgements	Males		Females	
				Separated Sample	Naive Raters	Separated Sample	Naive Raters
1	Conflicting personalities - personality factors.	85	50	11	3	9	2
2.	Relationship with other people outside marriage, e.g. friends, inlaws/influence of other people.	74	23	12	13	14	16
3	General background factors (e.g. family background, experiences prior to marriage).	69	23.5	15	15	13	18
4	Negative attitudes to each other, e.g. lack of knowledge or understanding, lack of interest, consideration etc.	64	40	6	2	5	3
5	Relationships with children/effects of children.	63	28	10	12	12	13
6	Involvement in outside activities, e.g. University, committees, social activities, etc.	60	22	14	18	17	19
7	Employment problems/stress.	58	32.5	13	11	15	11
8	Desire for more freedom/other desires (apart from content areas mentioned).	48	38	2	8	6	12
9	Communication problems.	47	69	3	1	2	1
10	Extramarital affairs (sexual).	45	39.5	4	5	16	10

Table 6 (Continued)

11	Finance problems/ stress.	44	48	7	10	17	7
12	Conforming to sex-role stereotypes, e.g. husband and wife roles.	44	36	16	16	18	14
13	Increasing awareness or sudden realizations concerning marriage, changing expectations, (e.g. that husband or wife was not going to change).	42	43	9	9	4	9
14	Sexual relationship/ sexual problems.	40	42.5	1	6	10	5
15	Alcohol/ drinking of husband.	32	51	-	4	7	6
16	Change in feelings of love/ affection.	29	51.5	8	3	8	4
17	Physical/ mental health problems.	29	25.5	11	14	11	17
18	Other attitudes or beliefs (not towards each other), e.g. religious and political beliefs, attitudes to life, etc.	27	30	5	17	1	15
19	Husband's physical violence.	18	40	-	7	3	8

Note: Those columns with a dash did not reach an n of 6.

a general notion of how important a cause is, in causing marital separation. Overall, then, this pattern of correlations does not support the notion that respondents from our marital separation sample were powerfully influenced by socially shared theories, in the selection of the causes for their marriage break-ups.

The second piece of analysis involved the causal importance ratings. As with the % data, mean naive rater rankings were calculated across male and female groups for each category. These figures, all converted to ranks, can be seen in Table 6 alongside the causal importance ranks from our marital separation sample (which were derived from the standardised S.M.E. weights). These means were rank correlated with the actual causal importance rankings of our marital separation sample. The resultant correlations are shown in Table 7. As can be seen, all the correlations between the marital separation sample and the naive rater sample are significant (between .44 and .62). Also note that there is a very high agreement between the male and female naive raters (.93), while there is moderately strong agreement between the male and female separated samples (.58). These correlations show there is a substantial level of agreement both within and between the naive raters and the separated sample. More generally, they indicate that when separated people are asked to assign causal importance weights to their spontaneously produced causes they have a tendency to cognitively tap into a socially shared theory which specifies which causes are important.

Table 7

Rank Correlations Among the Ranked Causal Importance Estimates of the Marital Separation Sample and the Naive Raters

	Male Naive Raters	Female Naive Raters	Male Separated Sample	Female Separated Sample
Male Naive Raters		.93****	.62***	.46*
Female Naive Raters			.57**	.44*
Male Separated Sample				.58**
Female Separated Sample				

* $p < .05$
** $p < .01$
*** $p < .005$
**** $p < .001$

CHAPTER V

Discussion

The S.M.E. Technique

This study provides useful initial support for the validity and reliability of the S.M.E. technique in measuring the perceived importance of causal attributions. The correlations between the attribution measures (see Table 1) favourably compare with correlations reported in other studies using more than one attribution measure (Elig & Frieze, 1979; Herzberger & Clore, 1979), though as expected it was the two ipsative measures that produced the highest correlations (between .52 and .62). Considering the rather circuitous route which produced the free response attribution category percentages, these latter correlations are impressively high.

The mean reliability correlation was also satisfactory (.51), particularly when one considers that many people used radically different scales the second time around. We would also expect some change in the estimates to occur naturally over the intervening period, explanatory accounts of the past not being set in concrete but existing to some extent in a fluid and dynamic state. Indeed, the correlation between actual change in the causal importance ratings and self report of change (-.36) indicates the respondents were, to some extent, aware of the changes that actually occurred in their thinking. The most dramatic example of radical change was one male respondent, who in a note attached to his second S.M.E. task explained that since the first interview he had learned the 'real' reason his wife left; namely, that she had formed a sexual relationship with another person and had left home in the hope that the third party would also leave his family and live with her. He added in his note that,

> some of the other reasons mentioned may have encouraged her in some small way to turn to another man. She has always been very impulsive (one of her good points) but it appears this time got involved in a situation she possibly couldn't control ... Because of the way she behaved (lied, cheated, schemed etc.) I have now decided that there is absolutely no chance for attempting a reconciliation.

This example powerfully illustrates the influence that explanatory reconstruction of the past (accurate or inaccurate) may have on present attitudes, feelings and intentions. This person, incidentally, attained the lowest correlation of the sample between the first and second S.M.E. tasks ($r = -.36$).

Implications for Attribution Theory

The Internal-External Distinction

The convergent validity correlations have important implications concerning the internal-external distinction. One of the disturbing features of the internal-external distinction (pointed out for example by Lee Ross, 1977) is the ease with which an internal attribution can be rephrased as an external attribution. For example one can easily rephrase the internal attribution, "John is having problems at work", as an external attribution, "Work is really getting to John". In fact it was precisely these sorts of subtle grammatical features that (mostly) determined whether an attribution was categorised as internal or external. As can be seen in Table 4, the content external categories, in terms of semantic content, mainly mirrored those in the internal categories (e.g. children, work, finance, relationships, etc.). Hence, the convergent correlations suggest that these grammatical differences, illustrated above, are not merely random whims of language usage but are valid indicators of an underlying psychological reality.

There is also a more subtle point here. Note that the correlations (Table 1) between the category attribution measures show a pattern that does not suggest a hydraulic relationship between the internal and

external categories. If respondents were utilizing this model, we would expect strong negative correlations between the independent category external and self/ex-spouse categories. Nor were respondents discounting in the S.M.E. weights they assigned. This was determined by correlating the mean weight of each respondent's category (1-9 pt) weighting with the number of attributions in his/her account (this only included the respondents who posted back the S.M.E. reliability check : $\underline{n}$ = 40). If respondents were discounting we would expect there to be a negative relationship; in fact, the correlation was extremely close to zero ($\underline{r}$ = .02).

Kelley (1972) argues that for extreme effects there will be a tendency for a number of causes to be seen as necessary; the relevant schema is termed the multiple necessary causal schema. In the present situation subjects appear to be using this schema. Interestingly, however, the convergent correlations with the ipsative measures suggests that, if asked, people can switch to the multiple sufficient causal schema for the same phenomena with apparent facility.

Descriptive Data and Attribution Theory

Some interesting sex differences emerged with regard to the content causal attribution categories (see Table 4). The differences between the sexes regarding drink, violence and sex are consistent with findings in the U.S.A. (Levinger, 1966) and Australia (Burns, 1978, Note 4). One of the interesting differences was in the physical violence category, where 10 women mentioned physical violence by the husband as a cause, and only one male mentioned this category as a cause. Six of these 10 women stated their husbands had inflicted severe physical violence upon them over extended periods of time. The other 4 women claimed the violence consisted of a few isolated instances. Of those women who cited severe continuing physical

violence as a major cause of the breakup, two were part of our married couples sample. In only one case did the husband state he had hit his wife but in somewhat different terms from his wife:

> Wife - He used to knock me down so much it wasn't funny. He never let up hitting me until Judy was born. He also hit my daughter Carol which I think badly affected her.
>
> Husband - I had slapped her a few times in the face when she was in hysterical moods.

One could explain this sex difference in terms of impression management processes, i.e. men did not wish to admit their own socially undesirable behaviour to the interviewer. Another factor may be the psychological hurdle in admitting that one's own violence was a major cause of the marital separation, and all the extra significance that implies. Consistent with this point, the married male respondent who did not cite his violence as a cause (though his wife did), did spontaneously admit after the interview that he did hit his wife; however, he did not think this was a cause for the break-up.

Interestingly, a number of men (5) mentioned being too "soft" or "not hard enough" with their wife, as a causal factor in their marital separation. This attitude is exemplified by one male who stated,

> I think I was too soft. I think somewhere in life a man has to put his wife over his knee and give her a good spanking and keep her in line. If you can't spank someone you love and after that have a big cuddle, then there is something wrong. They appreciate you much more I'm sure.

Examining the rank importance attached to these categories, again we note the males' preoccupation with sex reflected in the importance attached to extramarital sexual relationships and the sexual relationship between spouses. Harvey, Wells and Shaver (1978) report in a study of 75 unmarried couples, that males rated incompatibility in sexual relations as a more potent source of conflict than did females. Christensen and King (Note 6) reported that how recent the last reported occurrence of sexual intercourse was between married

couples, was a significant predictor of marital happiness for men but not for women. These findings strongly suggest that the males' tendency to place greater emphasis on the sexual relationship as a cause for the breakup, may be a natural concomitant of their tendency to place more importance on this aspect both before and during marriage.

One fascinating aspect of the attributions (see Tables 4 and 5), was the prevalence of meta-cognitions; that is people often cited their own perceptions of the marriage or their own attitudes and feelings as causes for the marriage breakup. One interesting class of meta-cognitive attributions which included increasing awareness, realizations or changing expectations and the like, were especially prevalent with women and given higher causal importance by women compared to men. Frequently, these realizations were portrayed as occurring suddenly, e.g.

> After four years of marriage I woke up one morning and realized I could not conform to what I saw was the accepted norm in other marriages of the husbands boozing and screwing around.

Often, they were expressed in terms that suggested the person's own survival or that of their children was at stake, e.g.

> I could see the symptoms of another nervous breakdown appearing. I thought no way am I going through another one, for any man.

> I had to control myself from hitting my daughter when she was crying one day, and when I saw this happening to me I knew I would have to get out.

There are certain aspects of our results that are admirably consistent with attribution theory. First, people's attributions are predominantly person centred (see Table 2). This accords with the present widely held view that naive perceivers tend to overlook situational constraints and concentrate on person attributions (Ross, 1977). Looking at the abstract taxonomy data more closely (Table 5) it is clear that pure frequency dispositions are common; the most

common attributions are personality characteristics (both specific behavioural ones and general personality characteristics), while specific actions are also common ($\underline{M}$ = 2.7). However, cognitive-purposive dispositions were also common, e.g. attitudes, wants, beliefs, feelings, knowledge, etc.

As with our findings of sex differences on the incidence and perceived importance of sexual related attributions, there is evidence that these attribution tendencies are likely to be related to typical attribution patterns developed during marriage. Two separate studies carried out by Kelley and his colleagues (Cunningham, Stambul, and Kelley, 1973; Tiggle, Peters and Kelley, 1977 - both reported in Kelley, 1979), found that when young heterosexual couples were asked about the problems encountered in their relationship, their answers were frequently phrased in dispositional terms - both cognitive-purposive and pure frequency dispositions being common. Kelley (1979) presents a range of such evidence to support his view that the process of dispositional attribution is a crucial mediating link in the process of developing close personal relationships. He further argues that one particularly important class of dispositions are those that operate uniquely within the relationship, e.g. attitudes towards each other. If Kelley is right then one would expect to find causal attributions for marital separation to be frequently focussed on the interaction between the participants rather than attributions to only one partner, e.g. <u>we</u> fought a lot, <u>we</u> could not communicate, etc. Examining all the personal attributions in this study the following results were obtained : 26.3% are to the self alone, 41.01% to the ex-spouse alone, and 32.69% are dyadic attributions[12]. Kelley's model is thus supported by our data[13].

Overall then, the present data tend to support the supreme importance placed on dispositions by attribution theory. On the other

hand, there are features of our data not so consistent with the conventional wisdom. The models of Heider, Jones and Davis, and Kelley all make the key assumption that the attribution process stops at dispositions. However, our data showed that a large number of respondents did not stop at dispositional attributions but went beyond dispositions to background factors such as upbringing etc. (Tables 4 and 5). Here is a typical example:

> Background and upbringing come into it as well. I was very strictly brought up by an old army man. Dad said you did something you did it now. Whereas Gary was brought up by his parents who were very busy earning money and didn't really have any time to bring up the children at all. They didn't have any discipline or affection and that shows through his attitudes.

Exploring this tendency further, the author coded all attributions according to whether or not the attribution was for a disposition or not. A mean figure of twelve percent of all attributions were for dispositions. (This tendency correlated .45 with education level.)[14]

More generally, the scope, complexity, and level of sophistication of many respondents' accounts were impressive, and were clearly the result of a great deal of cognitive work. A popular metaphor in social cognition at the present time, is that of people as cognitive misers. The data here suggest that in real-life domains of considerable affective and cognitive significance, this metaphor may be both inappropriate and misleading.

Nisbett and Wilson's Hypothesis : Where Do Peoples Explanations Come From?

The pattern of correlations among the causal importance ratings of the naive raters' sample and the marital separation sample support the following generalizations. First, there does exist a socially shared theory specifying what are the important causes for marital separation. Second, separated people are not powerfully influenced by this theory, when selecting the causes. Third, separated people are powerfully

influenced by this theory when deciding on how important these causes are in causing their own separations.

The second generalization above does not, of course, preclude the possibility that people select their causes from a pool of possible causal categories that is derived from socially shared theory. In this regard, it is interesting that a number of respondents specifically mentioned sex was not a cause of their marriage breakup, thus indicating they were aware of the theory but that it did not apply to their own case. There are several points to note here. First, there may be severe reality constraints operating in the selection of causes. If one has always had a good sex life or never had communication problems then it would be remarkably irrational to pick these factors out as causes for the subsequent breakup. People in this situation may be more likely to regard themselves as atypical cases. Note that the mean naive raters' estimates of the percentage of marital separations caused by the individual factors are rather low, with only four achieving over 50%. If this data is representative of people's consensus beliefs, then these beliefs will allow considerable leeway in the selection of individual causes.

Where our respondents did seem to be more powerfully influenced by the popular theory, was in determining how important the particular causes were in causing the separation. This judgement is less confined by reality constraints, and is of necessity a more theoretical judgement. The upshot is that Nisbett and Wilson's theory is partially supported. People's causal judgements are, in part, theory driven judgements, the theories being garnered from one's culture or sub-culture in the form of rules and causal generalizations.

Correlates of Attribution Category Percentages

The most potent influence on the self and ex-spouse external attribution category percentages was exerted by the 'who decided to leave' set of variables (see Table 3). It appears straightforward enough to understand why people who made the decision to leave would, in general, attribute more causal responsibility to themselves. On the face of it they appear to be more responsible. It is not quite so obvious why people who were left should attribute more causal responsibility to external factors operating on their ex-partner. A number of explanations appear feasible. First, it may create less anxiety to explain one's rejection via external influences acting on the ex-spouse, than because of the ex-spouse's lack of concern or love towards oneself or by reference to one's own behaviour or personality. Here is an illustrative example of the sort of external attributions we are discussing, taken from the account of one woman who was left by her husband, after being married for 30 years and separated for 13 months.

> He wasn't well. He was on the wrong tablets from the doctor. That caused his depression. -- The trouble happened at a bad time. It was the time of my change of life, and my son's growing up stage, when he wanted to find out the facts of life. I had various conversations with him but he didn't talk with his father. I tried to get his father to talk to him, but he was a shift-worker and didn't have the same contact with him. -- Once she (the other woman) got out of hospital she rang him up here and promised to look after him. She demanded that he come and live with her. He is flattered and having a lovely time now. If it wasn't for her, he would still be here. -- The death of our daughter may have had a delayed reaction with him. -- With him working on shift-work we could not have a normal relationship. -- The people at the post office (his workplace) are all a loose living lot, living with each other. -- Perhaps the war affected him. -- Life may have just been too humdrum for him.

However an explanation in more straightforward information processing terms is also possible. This is illustrated by one male respondent who when asked whether his job (involving night-work) influenced him or his wife more, answered that it must have influenced

his wife more as she was the one who left.

One unexpected finding was the influence that the sex of the interviewer exerted over the self and ex-spouse attribution category percentages (see Fig. 2). The male interviewer produced results that were consistent across the sexes. However, the female interviewer produced strongly disparate results across sexes. The males interviewed by her, gave higher self percentages ($\underline{M}$ = 41.1%) than ex-spouse percentages ($\underline{M}$ = 36.5%). The female respondents went strongly in the reverse direction (Self $\underline{M}$ = 24%, Ex-Spouse $\underline{M}$ = 52.8%). Why did this effect occur? One reason may have been that the female interviewer (in her early thirties and attractive), on her own initiative and in an attempt to establish good rapport, told her respondents she was separated herself prior to the interview proper[15]. This may well have promoted the tendency for the women to express their 'real' more private feelings, attitudes and judgements, without fear of being harshly evaluated. Conversely, this knowledge may have led the men to exercise caution and present themselves as manfully willing to share or take responsibility. To be sure, these post-hoc explanations are highly speculative. However, it should be noted here that research in other domains also suggests that, depending on the circumstances, self-presentation needs may be better served by accepting responsibility for negative events (Bradley, 1978; Tetloch, Note 7). Parenthetically, our results here effectively post the warning that when dealing with real-life events of central importance to the participants, and utilising highly sensitive measuring instruments, impression management processes may well have a tendency to assume a much greater role than in the typical laboratory experiment.

Up till now we have been talking as if the causal relationship was only one-way between these variables and the attribution category percentages. Of course it does not make much sense to talk of such

variables as 'who decided to leave' as being caused by the subsequent explanations for the marriage's demise. Nevertheless, as we indicated previously, it may well be that similar characteristic attributional patterns to those obtained here may prefigure and partly determine the actual separation.

Explanation or 'Mere' Self-Serving Justification?

There are a number of features of our data that strongly suggest people are being somewhat less than completely fair and rational in their explanatory accounts. To begin with there was a general marked tendency to give more causal responsibility to the ex-spouse than oneself, though this depended to some extent on the sex of the interviewer and the respondent (see Figure 1). Secondly, there was a tendency to give more negative attributions to the ex-spouse than to the self, though this tendency was significant only for the women[16].

One possible interpretation of these data is that the interview situation, which involved giving an explanation to a stranger and also having that account taped for posterity, may have set up strong situational pressures on the respondent to justify him or herself, and thus lay the "blame" with the ex-spouse. Thus the interview may have been perceived by the bulk of our respondents not as a situation in which they were to dispassionately explain why their marriage ended, but one in which they would be required to justify and defend their own part in that breakup.

It may be remembered that the second S.M.E. task was completed in the absence of the experimenter and mailed back without attaching names - a much more anonymous procedure than in the interview sessions. If the above argument is correct then one would expect the attribution category percentages, the second time around, to reflect a more even-handed approach. To test whether this was the case, attribution

category percentages were calculated from the second (reliability check) S.M.E. ratings, utilising the same method as previously used and placing the attributions in the same categories (self, ex-spouse, external self, etc.) as they were previously coded. Looking at the change scores non-parametrically, the only category to change in a specific direction was the ex-spouse category for which 70.7% of the respondents tended to give a higher percentage to the ex-spouse on the second score, $\underline{X}^2$ (1) = 5.62, $\underline{p}<.02$[17].

Hence, the pattern of data does not support the view that respondents were merely setting out to justify and defend themselves in the interviews. This suggestion is backed up by both interviewers' causal observations that quite a large number of respondents appeared anxious to avoid the impression that they were merely attempting to justify themselves and blame everything on the ex-spouse. This observation was based primarily on the prevalence of such spontaneous comments as "we should be fair about this", or "Gee, this sounds as if it's all his fault and it wasn't".

It should be stressed here that the two pairs of concepts : rational vs rationalising, and explanation vs justification, are inherently very fuzzy and do not represent hard and fast categories. Given this caveat, however, what picture emerges from a qualitative examination of the explanatory accounts themselves? As might be expected, in part, they fit well the defensive, self-serving, self-justifying image of man, promoted by some psychologists and philosophers (Buss, 1978). The example below is typical of this self-justificatory style.

> Grog was a problem in-so-far as my wife had something against it. Mind you, I was not drinking more than my friends. O.K., I used to come home about 7.30. Lots of my friends used to come home at 1.00 or 2.00 o'clock in the morning. Their wives would abuse them in the morning, and then it was over. My wife is very quiet - she wouldn't row. -- My wife knew my life style (including my drinking) before I got married. -- I would argue that if drinking causes you to bash your wife

> or your children, then fair enough - but that never happened. (Male, married 16 years, separated 9 months.)

On the other hand the traditional attribution model which presents a view of people as rationally struggling to explain and attain a causal understanding of the world, also splendidly fits part of the accounts people offered. Consider for example the following remarks which show acute psychological insight in the causal reconstruction of the past.

> I think we got locked into a mutually reinforcing set of attitudes concerning each other. We had certain stereotypes of each other's sexuality which stopped us growing and changing. (Male, married 5.5 years, separated six months.)

> We went to counselling in the last few months. It only took 3 or 4 sessions for me to realize that here was I saying if he would only stop drinking, if he would only start coming home at night, if he would only start thinking of things we could do together, and so on - then everything would be all right. I realized that what I was really saying was that he should be someone other than he was - which was ridiculous - therefore it was up to me to get out and patch my own life up. (Woman, married 2 years, separated 18 months.)

It is rather difficult to interpret the above sort of comment (which were quite prevalent) as self-justificatory defensive manoeuvres; rather they appear as genuine attempts to understand and explain what happened in people's own marriages.

Coping and Attributions

In line with other research findings (Blair, 1970; Meyers, Note 8; Hill, Rubin and Peplau, 1976) our results showed that low self-esteem respondents coped worse than high self-esteem respondents, and that males coped worse than females.

These relationships reported above, and the positive and moderately high correlations (.38 and .52) between self-reported levels of coping and reported level of coping by the ex-spouse in the ex-married sub-sample, do provide a modicum of validity for this single measure. As hypothesised, respondents who coped better attributed higher causal responsibility to themselves and less to their partner on the

structured ipsative measure. However, this finding was not replicated with either the attribution category percentages derived from the verbal protocols, or the structured likert scale ratings.

To recap, our hypothesised explanation for our prediction that those who would report coping better would give higher causal responsibility to themselves and less to external factors, was in terms of the increased feelings of personal control associated with such attribution tendencies. The zero-order correlations between personal control and the attribution category percentages, which were significant, indeed showed that those with higher personal control gave more causal responsibility to themselves ($\underline{r}$ = .23), and less to external factors ($\underline{r}$ = -.23, and $\underline{r}$ = -.24).
Accordingly, such an explanation is supported by our data. Perhaps our failure to demonstrate a more robust connection between coping and attribution patterns, is a function of the use of only a single dependent measure for this complex psychological concept.

Competing Explanations for the Same Marriage

The overwhelming impression gained from examination of the competing explanations offered by our sub-sample of respondents formerly married to each other was not one of sharp disagreement, as might have been expected, but simply that they "missed" each other. A mean of only 25% of causal attributions across couples were even on the same theme. Among these, about 38% were in good agreement, with the remainder diverging along a variety of dimensions. As indicated previously, the attributions of ex-couples often differed in the kind and degree of detail added, as well as utilising different attribution targets. To be sure, there were isolated instances of sharp attribution disagreement. For example, in one couple the wife attributed her husband's impotence to his feelings of guilt which she

said he suffered from after stealing money. The husband explained the same impotence as due to his wife gaining weight, becoming unattractive, and therefore losing her sexual attractiveness. However, generally, people chose different factors and issues in making attributions for their marriage breakdown.

It is as if, by the time separation arrives, each partner views the marriage so differently there are really two marriages, not one. Of course, considering the vast range and number of potential factors that exist in a marriage relationship and its social milieu, it is perhaps not so surprising that people latch onto different aspects of the relationship in their subsequent explanation for its demise.

Sex Differences in the Decision to Leave

One interesting pattern in our data was the finding that 64% of the women and only 21% of the men reported that they decided to leave, while 15% of the women and 58% of the men reported it was their ex-spouse who decided to leave. Twenty-one percent of both sexes reported it was a mutual decision. A study of how female single parents cope, also carried out in Hamilton city (Ritchie, Note 9), although not using a random sampling technique, found a similar pattern : 49% - self decision, 22% - mutual decision, and 29% - ex-spouse decision. Similar asymmetrical patterns have also been reported in the U.S.A. by Goode (1956) in his classic study of divorced women, and Hill et. al. (1976) in their longitudinal study of breakups before marriage. This evidence supports the view that the pattern found in our sample is not merely a result of our non-random sampling technique, but reflects a general tendency in the population at large. It also suggests, somewhat remarkably, that this pattern extends over several decades and across countries.

A feminist explanation for this data might be that marriage is a repressive institution for women but not for men - a view for which there is some evidence (Gove, 1972a, 1972b). From this it would follow that women suffer more than men in marriages, therefore they leave more often - a beautifully clear and simple explanation. One other explanation mooted by Hill et. al. (1976) is also related to sex-role differences. This is the argument that women are much more sensitive and discriminating within personal relationships than men (owing to differential socialization). Therefore women are more likely to understand, be sensitive to, and therefore be adversely affected by interpersonal strains, stresses and problems within a marriage. If this latter argument was true then one would expect this difference to show up in attribution style differences between the sexes. Women's accounts would be more complex and sophisticated involving more meta-cognitive attributions, and other psychologically subtle attributions. There is some support for this notion in the results shown in Table 4, with women utilising a wider range of attribution types, including such esoteric attributions as self-deception/wishful thinking. Also, women's accounts did contain slightly more attributions than men's, though to an insignificant degree ($\underline{r}$ = .2). On the other hand, women used a lower percentage of dyadic or interactive attributions than men ($\underline{r}$ = -.13) which counts against the hypothesis.

Actually, the variable most consistently significantly related to the degree of complexity of the accounts was educational level. Those with higher educational levels used more attributions ($\underline{B}$ = .34)[18], used a greater range of abstract categories ($\underline{B}$ = .36)[18], used more dyadic or interactive attributions ($\underline{r}$ = .29), more often made attributions for dispositions ($\underline{r}$ = .45), and more often made background ($\underline{B}$ = .38), and reasons for marriage ($\underline{B}$ = .39) attributions. Clearly, more research is needed to answer some of the puzzling questions surrounding this odd

asymmetry between the sexes.

Concluding Comment

The motivation behind the present research has been the desire to examine in a descriptive and analytic fashion, attributions in a real-life setting. The attempt has been made in this thesis to present the key findings produced in that attempt, from the mountain of data collected. It has also suggested, in a rather schematic fashion, how these findings jell with some of the issues, controversies and hypotheses in attribution theory, hitherto almost exclusively confined to examination in a laboratory setting. It is hoped that this research helps illustrate the potential usefulness of free response protocols in developing a more detailed, sophisticated and ecologically valid understanding of attribution processes.

Footnotes

1. For a detailed treatment of the similarities and differences between the three theories see Shaver (1978, Jones and McGillis (1976) and Schneider, Hastorf and Ellsworth (1979).
2. For a critical discussion of these five points see Ross and Fletcher (in press).
3. This failure has been dubbed the "central irony" of attribution research by Kelley and Michela (1980).
4. A computer search carried out by Kelley and Michela (1980) was reported to have yielded over 800 published articles in the last decade.
5. Recent research has affirmed the importance of this controllability dimension (Passer, 1977, Michela, Peplau and Weeks, 1978, note 2; Michael, Passer, Kelley and Michela, 1978; Meyer, 1980).
6. See Ross and Fletcher (in press) for an analysis of "correspondence" (the relationship between behavioural cues and dispositional attribution) as it is presented in Jones and Davis' (1965) theory. They argue Jones and Davis' analysis is badly flawed.
7. For a detailed conceptual analysis and literature review of the concept and process of rationalization see Fletcher (1977).
8. For the likert-type 9 pt scales the nine scales concerned with the roles of the self and the ex-spouse respectively, were collapsed. The resultant means were : self = 5.49, ex-spouse = 6.37. This difference was significant, t (61) = 3.27, $p<.05$. For the structured ipsative ratings the means were : self = 32.62%, ex-spouse = 41.71%. The difference between these two means was also significant, t (61) = 2.14, $p<.05$.
9. This factor analysis was of necessity an exploratory one due to the low n of 62. However the results were interesting and

suggestive. The full results of this factor analysis are shown in Appendix D.

10. Error Model 1 was utilised for computing the statistical significance of the semi-partial correlations. In this approach the F ratios are computed using the variance not accounted for at that step as the error term. The df's vary according to the number of previous predictor variables, and the number of predictor variables added on that step. Statistical tests were also carried out for each set of independent variables in each multiple regression, to check that all partialled out variables met the homogeneity of regression assumption. All in fact did so.

11. Of course these correlations need to be treated with caution, given the relatively large number of correlations computed (64) and the resultant increase of Type 1 error. An exploratory factor analysis was carried out on this percentage data, after deleting five categories which did not reach a mean of 1% of the attributions. This resulted in five factors, with an eigenvalue greater than one, accounting for 65.2% of the variance. The factors, however were only partially interpretable, while the low n and the doubtful procedure of factor analysing ipsative data make the results of any factor analysis rather dubious. For these reasons these results will not be reported here.

12. Confirming evidence is provided by the factor analysis of the attribution questionnaire (parts A and B), which produced one factor appearing to be an interactive or dyadic one (see appendix D).

13. Some respondents showed an interesting shift from one type of disposition to another. For example one respondent stated that, 'I used to think my wife was a cold person, but now I realize that she was just cold towards me'. Also note the example from

a male's protocol on page 68 which shows a similar shift occurring.

14. The author is currently involved in a set of studies exploring a set of questions surrounding when, why and how people go beyond dispositions. This fact illustrates how this type of exploratory research can serve to generate hypotheses and perhaps ultimately extend theoretical formulations.

15. The author did not know this until some months after the interviewing was complete.

16. One could cavil at the methodology here, as the students who did the rating may have had different notions of social desirability from the people who produced the attributions. One suspects, for example, that the male respondent who declared, in tones of righteous indignation, that his wife did not 'even' pick up his clothes off the floor no matter how long he left them there, was under the impression he was saying something negative about his wife's behaviour. The student female rater, however, considered this a positive behaviour (+2).

17. A parametric analysis into the change scores for each attribution category percentage was also carried out. This was accomplished using a multiple regression approach, where the post measure is the dependent variable and the pre-measure is partialled out by entering it as the first independent variable (Cohen and Cohen, 1975). The six independent variables were the level of self-esteem, the level of self-reported coping, who decided to leave (3 dichotomous variables), and sex. The only attribution category percentage (dependent variable), for which the addition of these variables significantly increased the multiple R, was the self percentage category, F (5,33) = 4.37, $p<.01$. The Beta weights showed that, partialling out all other independent

variables, males attained a significantly higher percentage on the self % post-score than the females, F (1,33) = 7.89, $p<.01$. The 'ex-spouse decision to leave' group was also significantly lower on the post-score, F (1,33) = 11.63, $p<.01$.

18. These two Beta weights were derived by regressing the following independent variables on the two dependent variables (the total number of attributions and the total number of abstract categories used) : sex of respondent, sex of interviewer, years married, months separated, coping, and education level.

Appendix A

Attribution Questionnaire - Parts A, B and C

Section A

Place a tick on the scales below to indicate how important you feel the following factors were in causing you and your ex-spouse to separate.

1. Your personality characteristics.

   very unimportant :___:___:___:___:___:___:___:___: very important

2. Your attitude to, and beliefs about, yourself.

   very unimportant :___:___:___:___:___:___:___:___: very important

3. Your attitudes towards, and beliefs about, your ex-spouse.

   very unimportant :___:___:___:___:___:___:___:___: very important

4. Any other general attitudes and beliefs of your own.

   very unimportant :___:___:___:___:___:___:___:___: very important

5. Your feelings and desires concerning yourself.

   very unimportant :___:___:___:___:___:___:___:___: very important

6. Your feelings and desires concerning your ex-spouse.

   very unimportant :___:___:___:___:___:___:___:___: very important

7. Your behaviour patterns (e.g. habits).

   very unimportant :___:___:___:___:___:___:___:___: very important

8. Your own specific actions (e.g. having an affair, striking your spouse).

   very unimportant :___:___:___:___:___:___:___:___: very important

9. Your own lack of effort.

   very unimportant :___:___:___:___:___:___:___:___: very important

10. Your experiences before marriage and personal background (e.g. family background).

    very unimportant :___:___:___:___:___:___:___:___: very important

Section A - (Continued)

11. External events, other people, and the situation after being married as they affected you (e.g. - stress of children, work pressures, etc.).

very unimportant :___:___:___:___:___:___:___:___: very important

Section B

1. Your ex-spouse's personality characteristics.

very unimportant :___:___:___:___:___:___:___:___: very important

2. Your ex-spouse's attitudes to, and beliefs about, him/herself.

very unimportant :___:___:___:___:___:___:___:___: very important

3. Your ex-spouse's attitudes to, and beliefs about, you.

very unimportant :___:___:___:___:___:___:___:___: very important

4. Any other general attitudes and beliefs of your ex-spouse.

very unimportant :___:___:___:___:___:___:___:___: very important

5. Your ex-spouse's feelings and desires concerning him/her self.

very unimportant :___:___:___:___:___:___:___:___: very important

6. Your ex-spouse's feelings and desires concerning you.

very unimportant :___:___:___:___:___:___:___:___: very important

7. Your ex-spouse's behaviour patterns (e.g. habits).

very unimportant :___:___:___:___:___:___:___:___: very important

8. Your ex-spouse's specific actions (e.g. having an affair, striking you).

very unimportant :___:___:___:___:___:___:___:___: very important

9. Your ex-spouse's lack of effort.

very unimportant :___:___:___:___:___:___:___:___: very important

10. Your ex-spouse's experiences before marriage and personal background (e.g. family background).

very unimportant :___:___:___:___:___:___:___:___: very important

Section B - (Continued)

11. External events, other people, and the situation after being married as they affected your ex-spouse (e.g., stress of children, work pressures, etc.).

very unimportant :___:___:___:___:___:___:___:___: very important

Section C

Divide up the following three factors giving a score to each, according to their relative importance you feel they had in causing your marriage to end, so that the total score equals one hundred.

1. Your ex-spouse's attitudes, personality characteristics and behaviour: _____
2. Your own attitudes, personality characteristics and behaviour: _____
3. Events and factors that were external to you and your spouse during the marriage e.g. other people, your living circumstances, presence of children, financial pressures etc.: _____

Appendix B

Content Causal Attribution Taxonomy

Step One

Decide which overall category the attribution belongs in:

1. Category A - Attributions to self or ex-spouse only e.g. - I hit my wife, my wife did not like me smoking, etc.
2. Category B - External attributions that may be to other people or circumstances e.g. - my mother-in-law was an interferring old so-and-so, the financial situation was a constant stress, the children were very difficult to handle, etc.

Note - A lot of the time it is the grammatical structure of the sentence which decides which category it comes into. For example the statement "my husband did not get on with the children" belongs in Category A. However the statement "the kids really annoyed my husband" belongs in Category B.

3. Category C - Background attributions. These are attributions concerning events or factors that are or were previous to the actual marriage date e.g. we had a lot of fights before we got married, he had a poor family background. (Note - Age at marriage is a background factor.)
4. Category D - Reasons for marrying. These are attributions that are specifically given as reasons for getting married e.g. we got married for the wrong reasons, I got married for security.

Step Two

Once it is decided whether it fits in Category A, B, C or D, the attribution is placed in one of the categories listed and described briefly below : examples are given where it is thought necessary.

Category A

1. Relationships with children - includes desires to have children.
2. Work/employment.
3. Finance/money.
4. Depression, anxiety, unhappiness.
5. Self deception, wishful thinking e.g. I believed what I wanted to.
6. Feelings of care or affection/change.
7. Communication.
8. Extramarital sexual relationships.
9. Alcohol/drinking problems.
10. Violence.
11. Fights or arguments.
12. Sexual relationships - physical affection.
13. Restriction of activities by the other person or possessiveness e.g. He got very possessive, he wanted me to give up my acting, etc.
14. Other person not helping around house/or child-care.
15. Actions, behaviour, attitudes etc. specifically concerning sex-role stereotypes of husband/wife roles e.g. My husband thought women should stay in the home, I thought the husband should make the decisions in the home etc.
16. Increasing awareness, sudden realizations, changing expectations concerning marriage e.g. I knew I had to get out, I realized my husband would not change, etc.
17. Negative attitudes or beliefs from one partner about the other person or towards the marriage e.g. Lack of knowledge or understanding, lack of interest, consideration, jealousy, resentment, lack of trust etc.

Note - This may be a 'self' or an 'ex-spouse' attribution.

18. Involvement in outside activities.

Category A - (Continued)

19. Platonic relationship with other people e.g. friends, doctors, in-laws.

Note - The remaining categories are catch-all rather abstract categories in which are placed only those reasons which do not fit easily into Categories 1-17.

20. General personality characteristics - (a) these include general personality or character attributions e.g. sincere, honest, dependable, highly strung. Type (a) attributions are vaguer than type (b) and refer to a loose conglomeration of items that often includes mental attributions as well as behavioural ones (refer - Bromley (1977), pages 94-97, corresponds to his "gent").

21. Specific personality characteristics - (b) these are much more specific than type (a). They refer to either observable items of behaviour (e.g. habits, regular behaviour) or to regular internal occurrences e.g. day dreaming etc. It also includes physical chracteristics e.g. he is fat. Examples - I was unpunctual, he fantasises a lot. Refer Bromely (1977) - p. 99.

22. Desire for freedom and other wants (e.g. - desire for freedom) - any 'wants' that do not fit anywhere else.

23. Other attitudes and beliefs - not towards ex-spouse e.g. religious and political beliefs, attitudes towards life etc. Attitudes are held towards something or somebody, and always include an evaluative element e.g. - he disliked our style of life.

24. Actions or reactions - anything that occurs more than twice is a personality characteristic (b), otherwise it belongs here. Includes decisions.

Remember only those items that do not fit into categories 1-17 go here.

Category B

1. Influence of others e.g. doctors, lawyers, counsellors (not friends, inlaws, or lovers).
2. Influence of friends.
3. Influence of family/inlaws.
4. Influence of the 'other' person in extra-marital sexual relationship.
5. Influence of children.
6. External circumstances or outside experiences e.g. affect of attending University, a mixture of factors, external factors fitting nowhere else.
7. Stress of work/employment.
8. Physical/mental health.

Category C

1. Family background.
2. Age at marriage.
3. Relationship - prior to marriage (note - living together is prior to marriage).
4. Self and ex-spouse attitudes e.g. I had no sense of direction prior to marriage, my wife used to play basketball before getting married, etc.
5. General background factors - anything that doesn't fit into the other categories or more general attributions e.g. we had different backgrounds.

Category D

1. Reason for marrying.

References

Bromley, D.B. Personality description in everyday language. London : Wiley, 1977.

Appendix C

Abstract Causal Attribution Taxonomy

Decide which overall category the attribution belongs in:

1. Category A - Attributions to self e.g. I am insecure, I hit my wife.
2. Category B - Attributions to ex-spouse e.g. my wife was a bad housewife, he didn't help round the house.
3. Category C - Self-external. These are external attributions affecting the self that may be to other people or circumstances e.g. his mother-in-law interfered with me, the house was too small for me, the baby cried all the time and that got me down.
4. Category D - Ex-Spouse-external. These are external attributions operating on the ex-spouse e.g. as above but affecting the ex-spouse.
5. Category E - Background attributions. These are attributions concerning events or factors that are, or were, previous to the actual marriage date e.g. we had a lot of fights before we got married, he had a poor family background. (Note - Age at marriage is regarded as a background factor.)
6. Category F - Reasons for Marrying. These are attributions that are specifically given as reasons for getting married e.g. we got married for the wrong reasons, I got married for security.

Note - Use grammatical and semantic cues to decide which category it fits into. Grammatical structure is particularly important in deciding whether an attribution is external or not. For example the statement, "my husband did not get on with the children", belongs in Category B. However the statement, "the kids really annoyed my husband", belongs in Category D.

Once it is decided whether it fits in Categories A to E, the attribution is placed in one of the categories listed and described below with examples.

Category A and B

Note - Categories 1-10 represent dispositions only.

1. General Personality Characteristics - this includes general personality or character attributions e.g. sincere, honest, dependable, highly strung, failure to communicate, etc. Generally items are put in this category that do not fit anywhere else. Refer Bromley (1977) - Pgs 94-97. Corresponds to his "GENT".
2. Specific Personality Characteristics - these are much more specific than General Personality Characteristics. They refer to either observable items of behaviour (e.g. habits, regular behaviour) or to regular internal occurrences that are not categorised as emotions/feelings, (e.g. day-dreaming) e.g. - I discouraged her, I read a lot, I was unpunctual, he fantasizes a lot, he wouldn't talk, he drank heavily. Refer Bromley (1977), p. 99.
3. Physical Characteristics - e.g. overweight, ugly, tall, thin, etc.
4. Attitudes - attitudes are held towards something or somebody. They include statements of preference or liking, e.g. I love him, he had a rotten attitude towards women. They also include an evaluative element e.g. he couldn't be bothered with the children, he always disliked work. Refer Bromley's ORFE category, (Bromley, 1977; pgs 106-112).
5. Wants/Needs - often the words 'want', 'desire' or 'need' are used e.g. he wanted to get away, she desired more freedom, he needed people.

6. Beliefs - words such as 'believe', or 'thought' are often used e.g. she did not believe in God, he believed I was perfect, he thought that women belonged in the house.
7. Emotions/Feelings - anything that is described in terms of feelings or emotions e.g. I got very angry with him, I felt insecure, he used to get depressed.
8. Knowledge - anything referring to a state of knowledge or understanding. This includes realizations, understandings, etc. e.g. I understood him, I realized we were growing apart.
9. Ability - includes direct references to ability e.g. he was not able to communicate, he was unable to laugh.
10. Effort - e.g. he did not try to talk, she made no effort to keep the house tidy, he did not work hard enough at the marriage.
11. Specific Actions - these are specific pieces of behaviour, either intentional or unintentional. If the behaviour is noted to occur more than three times classify as a trait. Includes decisions to act.
12. Episodic Internal - these are episodic versions of categories 4-8 and 10, note that categories 1-3 and category 9 cannot be episodic.

Examples

(a) Attitudes - He had a momentary dislike for his friend.

(b) Wants/Needs - He wanted to hit me.

(c) Belief - She believed I was telling lies for a day or two.

(d) Emotions/Feelings - I felt scared when the car crashed.

(e) Knowledge - He understood what I was saying.

(f) Effort - She did not try to phone me up that night.

Category C and D

1. External/Persons - when the attribution refers to a person or persons e.g. she tempted my husband and demanded he leave, the counsellor persuaded me to leave, all my friends thought I should leave.
2. External/Circumstance - refers to general circumstances rather than persons, e.g. money problems, living accommodation, living stress, job problems, etc.

Category E and F

1. Background and Reasons for Marriage - See previous descriptions.
2. Uncodable.

Note - Any negative statement is classified under the appropriate heading, e.g. he did not try, he is unable, he is not honest, he did not do the dishes, he does not believe, etc.

References

Bromley, D.B. Personality description in everyday language. London : Wiley, 1977.

Appendix D

Factor Analysis of Parts A and B of the Attribution Questionnaire

The factor analysis was a principal factor analysis with iterations. An orthogonal (varimax) rotation was used. Seven factors were generated with an eigenvalue greater than 1, accounting for 68.5% of the variance. The first five factors were judged to be interpretable. The variables, factor loadings, and suggested names for each of these factors are shown below. The cut-off point of .3 was used to list the variables in each factor. These five factors accounted for 58.3% of the variance. The proportion of variance accounted for by each factor is shown in brackets.

(a) Name - Ex-Spouse : General Personality and Behaviour.

(18.3%)

1.	Ex-spouse's attitudes and beliefs about him/herself	.73
2.	Ex-spouse's personality characteristics	.71
3.	Ex-spouse's feelings and desires about him/herself	.68
4.	Ex-spouse's lack of effort	.49
5.	Ex-spouse's specific actions	.46
6.	Ex-spouse's behaviour patterns	.43
7.	Ex-spouse's general attitudes and beliefs	.31

(b) Name - Dyadic Factor : Beliefs, attitudes, feelings and desires about each other.

(15.4%)

1.	Ex-spouse's feelings and desires about self	.77
2.	Ex-spouse's attitudes and beliefs about self	.77
3.	Ex-spouse's general attitudes and beliefs	.53
4.	Self's attitudes and beliefs about ex-spouse	.44
5.	Self's attitudes and beliefs about self	.39

(c) Name - Personal backgrounds and behaviour for Ex-Spouse and Self.

(9.3%)

1.	Ex-spouse's behaviour patterns	.63
2.	Self's background factors	.55
3.	Ex-spouse's background factors	.47
4.	Self's specific actions	.46
5.	Self's behaviour patterns	.45
6.	Ex-spouse's actions	.37

(d) Name - External factors and circumstances.

(8%)

1.	Ex-spouse's external circumstances	.60
2.	Self's external circumstances	.57
3.	Ex-spouse's feelings and desires about him/her self	.50
4.	Ex-spouse's general attitudes or beliefs	.31

(e) Name - Self-Concept : Personality, attitudes, and beliefs of self and about self.

(7.2%)

1.	Self's general attitudes and beliefs	.95
2.	Self's feelings and desires about self	.62
3.	Self's personality characteristics	.46
4.	Self's attitudes and beliefs about self	.46

Appendix E

Causes on the Same Themes from the Ex-Married Sub-Sample (n = 24)

Couple 1

Wife	Husband
1. My husband was a shift worker. 2. If I wanted to go out my husband would be asleep. 3. If he wanted sex, I wasn't usually there. 4. I didn't see my husband very often, and when I did, we had fights.	1. My doing shift-work was a problem in our marriage.
1. I married him at 17 after meeting him at 16, and had a baby at 18, and moved into our house at 19 - it was a bit too much for me and I just couldn't handle it.	1. We rushed into marriage. We were a bit young.

Couple 2

Wife	Husband
1. He was out all weekend with soccer and working and I had my singing - we were both leading different lives.	1. My wife had so many different interests. 2. My wife and I switched roles - she was going out so much and very seldom home.

Couple 3

Wife	Husband
1. I am a nurse, and this involved a lot of shift work.	1. She started working night shifts and we saw less of each other.

Couple 3 (Continued)

Wife	Husband
1. We had different life-styles. John likes being alone, and living the hippy commune style of living. I couldn't adjust to that (e.g. smoking pot), because my father was a policeman for 17 years (and I was exposed to the drug scene). There were a lot of barriers to be broken down.	1. I believed in the original hippy ideal and she had abolished all these ideals and they meant nothing to her.
1. I got a loan and worked while John built his boat. But all of a sudden he got sick of it.	1. I was single-minded about the yacht. 2. I wanted to build a yacht and go ocean sailing and I was disappointed when my plans for building a yacht fell through.
1. When John worked at the pub, he was working late and drinking hard.	1. I had a job in a hotel that my wife hated.
1. I liked to entertain and go out and John would spoil it by getting drunk (he didn't like going out).	1. I didn't like going to parties very much.
1. After four years of marriage I realized I could not conform to what I saw was the accepted norm in other marriages i.e. husbands boozing and screwing around.	1. I used to drink fairly heavily when the pressure came on. 2. I liked to go out with the boys sometimes and we'd drink and have a glorious time. 3. I used to chat up other girls at parties and regret it very much the next day. 4. I think perhaps my chasing these other girls hurt her a bit.

Couple 3 (Continued)

Wife	Husband
1. I met a guy who gave me the opportunity to leave the marriage.	1. I found my wife and this other man in a compromising situation, when I raided his farm cottage one morning. 2. My wife fell in love with a man who had all the 'gear' and was a very neat and tidy guy.
1. I did not want children and John did.	1. I definitely wanted to have children and my wife never wanted children.

Couple 4

Wife	Husband
1. I'm always on time. It was imprinted in me so long ago. When you try to live with someone who is so unpunctual as Dick is - he is anywhere up to 36 hours late - it's very difficult.	1. I am often not punctual, which she found irritating.
1. When Dick does lose his temper he is dangerous. He has hit me hard enough to knock me over. He has got a violent temper.	1. At times I have lost my temper.
1. I did leave Dick before and got a tremendous amount of pressure put on me to go back - e.g. ministers, marriage guidance, well meaning friends, etc.	1. My wife left once before for no reason.

Couple 5

Wife	Husband
1. He used to belt the kids around the heads. 2. To my husband there was always something wrong with my daughters. He would never let them bring their boyfriends home, whereas I encouraged them. 3. Jill missed a day at school and took an overdose of pills, because she didn't want to face Don. 4. If the boyfriends did come into the house he would say - "who the hell have you dragged in this time" - that was his attitude.	1. She used to bawl me out in front of the kids - not back me up. They realized mum was on their side. Her allegiance is all wrapped up in them. 2. What sparked the whole thing off was that I wouldn't go down to visit one of the daughters who was living with a man. 3. My two daughters marriages broke up and she was trying to patch up theirs, and I was more or less shoved in the background. 4. I was hot on the daughter bringing beer home. I supposed they thought I was narrow-minded. 5. To my way of thinking it was four against one. She had been ill and gave into them all the time. I came along and tried to straighten them out - it snowballed from there.
1. I could see the symptoms of another nervous breakdown appearing. I thought no way am I going through another one; for any man.	1. I put it down to my wife's ill-health.
1. He used to knock me down so much it wasn't funny. He never let up hitting me until Joanne was born. He also hit my daughter Jennifer which I think badly affected her.	1. I had slapped her a few times in the face when she was in hysterical moods.

Couple 6

Wife	Husband
1. For some girl to pay him attention perhaps helped his ego. 2. The main cause was my husband having an affair with a 20 year old girl - a friend's daughter, which went on for 2 years, and I didn't know. 3. The girl may have clung to Gary because he paid her a bit of attention. 4. Trust to me is a big thing in marriage. 5. I completely lost my trust in him, because I like people to be honest with me.	1. I used to meet a young woman (a daughter of friends) once every couple of weeks - have lunch and a bit of a cuddle etc. - this went on for a year. 2. I am still convinced Pat does not believe we were not sleeping together. 3. My wife went down to see Jenny at work - that blew the whole thing apart (i.e. our friendship). Pat felt that was the only way to do it - attack. 4. No matter what I did over the last 6 months she kept bringing up the other woman again and again - it reached the stage where I couldn't take any more.
1. If he wanted to make love o.k. If I did he would turn over and go to sleep. 2. The doctors did not really help me with my health problem, which meant I had difficulties with contraception, which may have affected our sex life.	1. There was less and less physical contact - less cuddling as well as sexual contact. 2. It gets very frustrating that there is no response (apart from reaching a climax) during sexual intercourse. 3. There has been a lack of sexual contact going way back, and this gradually got less and less over a period of time.
1. I was very involved with the children; perhaps he felt left out. But he was not interested in joining in their activities.	1. We became detached from one another. Pat seemed to go her own way with the family and I ended up as a spare part - just providing the finances.

Couple 7

Wife	Husband
1. I had to try to get a full-time job and give up my part-time job, because my husband asked me to (he still dominated me) - he said we needed more money. Finally I got the present draughting job - that was the beginning of the change - I changed, my husband never did.	1. Dianne went to work 18 months ago. The main reason she went back to work was to get money to go overseas. She is pretty intelligent and people made a lot of fuss about her. She got a few ideas e.g. listening to pop music, betting on horses, going to the pub. She wanted to be one of them, and identify with them. Because of my demanding job and because I did not really want to go, I did not go to the pub/work socials.

Couple 8

Wife	Husband
1. When he got into money problems, he became guilty, and sexually impotent.	1. I lost interest in my wife sexually - she had put on a lot of weight. 2. My wife did not make much effort in our sexual relationships.
1. The money problems got me to the point where I was afraid to go to the letter box, or answer the telephone, because of what might come up. 2. My husband would run up bills, borrow money, and also steal money. 3. He was getting behind in the payments of our car. He stole $400 from where he worked. 4. I had great difficulty in paying back the money he stole. I had to scrimp and save. 5. After he stole the money, he shouted at Stephen, until he vomited.	1. The financial problem was the biggest hassle. 2. My wife received money from her mother's will and kept it for herself.

Couple 8 (Continued)

Wife	Husband
1. My husband is a compulsive gambler. He can't help him self. 2. On Saturdays he would devote his time to racing (t.v.) and the T.A.B. and radio. 3. My husband spent most of the $1,000 I put into our joint account, on gambling.	1. I bet on horses (small amounts).

Couple 9

Wife	Husband
1. He wanted me to be perfect and to jump when he said jump. 2. He is very self righteous.	1. I was always correcting her in what was going on, and she disapproved of me and that was the initial stage of our rows and carry on. She couldn't be told. 2. With me trying to correct her all the time she started thinking I was always Mr Right and this got me down.

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1. There seemed to be no trust. 2. He didn't like me speaking to other men and when I did he would accuse me of either having had an affair, or I was going to have an affair. 3. My husband wouldn't even go and sell insurance at night. He wouldn't let me have any time to myself. 4. He was so possessive. 5. He wanted his woman and kids as one big family and no-one else. Preferably he'd like just him and me.	1. I became very jealous (I'm not proud to admit this) because of the way she was conducting herself. I was at the stage where I couldn't trust her - I don't think anyone could blame a husband for that because she was always on the go. 2. I used to say where have you been. Why have you been in hotels, and why do you drink - and I feel this is where the friction started. 3. I was always home early - 5.30-6.00 p.m. at the latest.

Couple 9 (Continued)

Wife	Husband
1. He always thought my daughters were very outspoken - they were but they were only trying to stick up for me. 2. He always made out that my kids were really bad news. In a way they were, with boyfriend problems and so on, but he always thought his kids would never do anything like that. 3. He didn't think I should allow my elder daughter to go out as often as I did. He didn't approve of her boyfriends.	1. Her children were being involved with alcohol, especially her eldest daughter. She was allowed at the age of 14 to go to hotels and things and to hang around with real rough guys. 2. Her children were in and out of the courthouse. 3. She was enticing her daughters to be with boys; this was the problem and it was interfering with our marriage. 4. She never listened to see what I was getting at by trying to prevent her children getting into trouble.

Couple 10

Wife	Husband
1. Nick was more his own person, more independent. I was not so independent, so I felt I was dependent on him.	1. I am a very strong individualistic person.
1. I don't think he fitted into the social scene that I was developing.	1. My wife became involved with single and separated women.
1. I felt he treated me as a physical object on occasions. He wanted physical closeness, whereas I needed verbal closeness to start with. 2. Sexually we never got on well. He always wanted it more than I did. That was a basic conflict.	1. We had common stereotypes of each others sexuality. 2. We were sexually incompatible.
1. The job Nick got affected him a lot.	1. The value systems of the two worlds (university vs business world) are diametrically opposed. 2. I started becoming involved in the system.

Couple 10 (Continued)

Wife	Husband
1. Nick did not express his feelings about my other relationships. When it came to the crunch he minded a lot.	1. We experimented a lot with other relationships, including sexual ones.
1. Nick's background was a lot different to mine.	1. We were from different family backgrounds.
1. We had some conflict over the children. He wanted a routinised approach and I didn't - I wanted it to flow more.	1. There was pressure from the children. 2. She was not a particularly good mother.

Couple 11

Wife	Husband
1. He cut himself off from the children and myself. 2. Michael was not interested in Richard (his son).	1. I started not participating in family life.
1. My husband drank heavily, took drugs, and absolute alcohol.	1. I came as close as I ever want to be, to become an alcoholic - that switched my wife off.
1. We failed to communicate.	1. The prime cause was a loss of communication; we stopped talking to each other.

Couple 12

Wife	Husband
1. I didn't love him as I should. I have always loved him like a brother.	1. She stopped loving me and felt she was living a lie.

Reference Notes

1. McGuire, W.J. Toward social psychology's second century. Paper presented at the A.P.A. convention, New York, 1979.

2. Michela, J., Peplau, L.A., and Weeks, D. Perceived dimensions and consequences of attributions for loneliness. Unpublished manuscript, University of California, Los Angeles, 1978.

3. Cooper, H.M., and Burger, J.M. How teachers explain student's academic performance : A categorization of free response academic attributions. Unpublished manuscript, University of Missouri, Columbia, 1978.

4. Burns, A. Separated spouses study. Paper presented at the 49th ANZAAS conference, Auckland, New Zealand, 1979.

5. Newman, H.M., and Langer, E.J. Post-divorce adaptation and the attribution of responsibility. Unpublished manuscript, Harvard University, 1977.

6. Christensen, A., and King, C. Behavioural correlates of marital happiness. Paper presented at the A.P.A. convention, New York, 1979.

7. Tetlock, P.E. The social consequences of defensive and counterdefensive attributions. Paper presented at the A.P.A. convention, New York, 1979.

8. Meyers, J. C. The adjustment of women to marital separation : The effects of sex-role identification and stage in family life. Unpublished manuscript, University of Colorado, Colorado, 1976.

9. Ritchie, J. Portrait of a pattern under stress : Children in solo parent families in NZ. Unpublished manuscript, University of Waikato, Hamilton, New Zealand, 1978.

References

Ajzen, I. Intuitive theories of events and the effects of base-rate information on prediction. Journal of Personality and Social Psychology, 1977, 5, 303-314.

Alston, W. Traits, consistency and conceptual alternatives for personality theory. Journal for the Theory of Social Behaviour, 1975, 5, 17-48.

Bernard, J. The future of marriage. New York : World Book Co., 1972.

Bernstein, W.M., Stephen, W.G., and Davis, M.H. Explaining attributions for achievement : A path analytic approach. Journal of Personality and Social Psychology, 1979, 37, 1810-1821.

Blair, M. Divorcee's adjustment and attitudinal changes about life (Doctoral dissertation, Florida State University, 1967). Dissertation Abstracts, 1970, 30, 5541-5542, (University Microfilms No. 70-11,099).

Bloom, B.L., Asher, S.J., and White, S.W. Marital disruption as a stressor : A review and analysis. Psychological Bulletin, 1978, 85, 867-894.

Bowers, K.S. Knowing more than we can say leads to saying more than we can know : On being implicitly informed. In D. Magnusson (Ed.), The situation : An interactional perspective, in press.

Bradley, G.W. Self-serving biases in the attribution process : A re-examination of the fact or fiction question. Journal of Personality and Social Psychology, 1978, 36, 56-71.

Bromley, D.B. Personality description in everyday language. London : Wiley, 1977.

Bulman, R.J., and Wortman, C.B. Attributions of blame and coping in the "real world" : Severe accident victims react to their lot. Journal of Personality and Social Psychology, 1977, 32, 351-363.

Buss, A.R. Causes and reasons in attribution theory : A conceptual critique. Journal of Personality and Social Psychology, 1978, 36, 1311-1321.

Carroll, J.S. Causal attributions in expert parole decisions. Journal of Personality and Social Psychology, 1978, 36, 1501-1511.

Chapman, L.J., and Chapman, J.P. Illusory correlation as an obstacle to the use of valid psychodiagnostic signs. Journal of Abnormal Psychology, 1969, 74, 271-280.

Cohen, J., and Cohen, P. Applied multiple regression/correlation analysis for the behavioural sciences. Hillsdale, New Jersey : Lawrence Erlbaum, 1975.

Cordray, D.S., and Shaw, J.I. An empirical test of the co-variation analysis in causal attribution. Journal of Experimental Social Psychology, 1978, 14, 280-290.

Covington, M.V., and Omelich, C.L. Are causal attributions causal? A path analysis of the cognitive model of achievement motivation. Journal of Personality and Social Psychology, 1979, 9, 1487-1504.

Cunningham, J.D., and Kelley, H.H. Causal attributions for interpersonal events of varying magnitude. Journal of Personality, 1975, 43, 74-93.

Deaux, K. Sex : A perspective on the attribution process. In J.H. Harvey, W.J. Ickes, and R.F. Kidd (Eds). New directions in attribution research, Vol. 1, Hillsdale, New Jersey : Lawrence Erlbaum, 1976.

Dweck, C.S., and Goetz, T.E. Attributions and learned helplessness. In J.H. Harvey, W. Ickes, and R.F. Kidd (Eds), New directions in attribution research, Vol. 1, Hillsdale, New Jersey : Lawrence Erlbaum, 1978.

Dweck, C.S., Goetz, T.G., and Strauss, M.L. Sex differences in learned helplessness : IV. An experimental and naturalistic study of failure generalization and its mediators. Journal of Personality and Social Psychology, 1980, 38, 441-452.

Elig, T.W., & Frieze, I.H. Measuring causal attributions for success and failure. Journal of Personality and Social Psychology, 1979, 37, 621-634.

Ferguson, T.J., and Wells, G.L. Priming of mediators in causal attribution. Journal of Personality and Social Psychology, 1980, 38, 461-470.

Fiske, S.T., and Cox, M.G. Person concepts : The effect of target familiarity and descriptive purpose in the process of describing others. Journal of Personality, 1979, 47, 136-161.

Fletcher, G.J.O. The process and concept of rationalization. Master's thesis, University of Waikato, Hamilton, N.Z., 1977.

Frieze, I.H. Causal attributions and information seeking to explain success and failure. Journal of Research in Personality, 1976, 10, 293-305.

Goode, W.J. After divorce. Glencoe, Illinois : Free Press, 1956.

Gore, W.R. Sex, marital status and suicide. Journal of Health and Social Behaviour, 1972, 13, 204-213 (a).

Gore, W.R. The relationship between sex roles, marital status, and mental illness. Social Forces, 1972, 51, 34-44 (b).

Grossberg, J.M., & Grant, B.F. Clinical psychophysics : Applications of ratio scaling and signal detection methods to research on pain, fear, drugs, and medical decision making. Psychology Bulletin, 1978, 85, 1154-1176.

Gurin, P., Gurin, G., & Morrison, B.M. Personal and ideological aspects of internal and external control. Social Psychology, 1978, 41, 275-296.

Harvey, J.H., Wells, G.L., & Alvarez, M.D. Attribution in the context of conflict and separation in close relationships. In J.H. Harvey, W. Ickes, & R.F. Kidd (Eds), New directions in attribution research, Vol. 1, Hillsdale, New Jersey : Lawrence Erlbaum, 1978.

Harvey, J.H., Yarkin, K.L., Lightner, J.M., and Town, J.P. Unsolicited interpretation and recall of interpersonal events. Journal of Personality and Social Psychology, 1980, 38, 551-568.

Heider, F. The psychology of interpersonal relations. New York : Wiley, 1958.

Herzberger, S.D., & Clore, G.L. Actor and observer attributions in a multi-trait multi-method matrix. Journal of Research in Personality, 1979, 13, 1-15.

Hill, C.T., Rublin, Z., & Peplau, L.A. Breakups before marriage : The end of 103 affairs. Journal of Social Issues, 1976, 32, 147-168.

Ickes, W., & Layden, M.A. Attributional styles. In J.H. Harvey, W. Ickes, & R.F. Kidd (Eds), New directions in attribution research, Vol. 2, Hillsdale, New Jersey : Lawrence Erlbaum, 1978.

Jones, E.E., & Davis, K.E. From acts to dispositions. In L. Berkowitz (Ed.), Advances in experimental social psychology, Vol. 2, New York : Academic Press, 1965.

Jones, E.E., and McGillis, D. Correspondent inferences and the attribution cube : A comparative reappraisal. In J.H. Harvey, W.J. Ickes, and R.F. Kidd (Eds), New directions in attribution research, Vol. 1, Hillsdale, New Jersey : General Learning Press, 1976.

Kelley, H.H. Attribution theory in social psychology. In D. Levine (Ed.), Nebraska symposium on motivation, Lincoln : University of Nebraska Press, 1967.

Kelley, H.H. Causal schemata and the attribution process. In E.E. Jones et. al. (Eds), Attribution : Perceiving the causes of behaviour, Morristown, New Jersey : General Learning Press, 1972.

Kelley, H.H. The processes of causal attribution. American Psychologist, 1973, 28, 107-128.

Kelley, H.H. Personal relationships : Their structures and processes. Hillsdale, New Jersey : Lawrence Erlbaum, 1979.

Kelley, H.H., and Michela, J.L. Attribution theory and research. In M.R. Rosenweig and L.W. Porter (Eds). Annual review of psychology, Vol. 31, 1980.

Kun, A., and Weiner, B. Necessary versus sufficient causal schemata for success and failure. Journal of Research in Personality, 1973, 7, 197-207.

Lau, R.L., and Russell, D. Attributions in the sports pages. Journal of Personality and Social Psychology, 1980, 39, 29-38.

Levinger, G. Sources of marital dissatisfaction among applicants for divorce. American Journal for Orthopsychiatry, 1966, 36, 803-807.

McArthur, L.A. The how and what of why : Some determinants and consequences of causal attribution. Journal of Personality and Social Psychology, 1972, 22, 171-193.

Messick, D.M., and Reeder, G.D. Perceived motivation, role variations, and the attribution of personal characteristics. Journal of Experimental Social Psychology, 1972, 8, 482-491.

Messick, D.M., and Reeder, G.D. Roles, occupations, behaviours and attributions. Journal of Experimental Social Psychology, 1974, 10, 126-132.

Meyer, J.P. Causal attribution for success and failure : A multivariate investigation of dimensionality, formation, and consequences. Journal of Personality and Social Psychology, 1980, 38, 704-718.

Michael, W., Passer, H.H., Kelley, H.H., & Michela, J.L. Multi-dimensional scaling of the causes for negative interpersonal behaviour. Journal of Personality and Social Psychology, 1978, 36, 951-962.

Miller, D.T., & Ross, M. Self-serving biases in the attribution of causality : Fact or fiction? Psychological Bulletin, 1975, 28, 213-225.

Nisbett, R.E., & Wilson, T.D. Telling more than we can know : Verbal reports on mental processes. Psychological Review, 1977, 84, 231-259.

Orvis, B.R., Cunningham, J.D., and Kelley, H.H. A closer examination of causal inference : The roles of consensus, distinctiveness and consistency information. Journal of Personality and Social Psychology, 1975, 32, 605-616.

Passer, M.W. Perceiving the causes of success and failure revisited : A multi-dimensional scaling approach. Unpublished doctoral dissertation, University of California, Los Angeles, 1977.

Peters, R.S. The concept of motivation. London : Routledge and Kegan Paul, 1958.

Poulton, E.C. Models for biases in judging sensory magnitude. Psychological Bulletin, 1979, 85, 777-803.

Reeder, G.D. Context effects for attributions of ability. Personality and Social Psychology Bulletin, in press.

Reeder, G.D. and Brewer, M.B. A schematic model of dispositional attribution in interpersonal perception. Psychological Review, 1979, 86, 61-79.

Reeder, G.D., Messick, D.M., and Van Avermaet, E. Dimensional assymetry in attributional inference. Journal of Experimental Social Psychology, 1977, 13, 46-57.

Rich, M.R. Verbal reports on mental processes. Journal for the Theory of Social Behaviour, 1979, 9, 30-37.

Rosenbaum, R.M. A dimensional analysis of the perceived causes of success and failure. Unpublished doctoral dissertation, University of California, Los Angeles, 1972.

Rosenberg, M. Society and the adolescent self-image. Princeton, New Jersey : Princeton University Press, 1965.

Ross, L. The intuitive psychologist and his shortcomings : Distortions in the attributional process. In L. Berkowitz (Ed.), Advances in experimental social psychology, Vol. 10, New York : Academic Press, 1977.

Ross, M., and Fletcher, G.J.O. Social and cultural factors in cognition. In G. Lindzey and E. Aronson (Eds). The handbook of social psychology, 3rd Ed. In press.

Ross, M., & Sicoly, F. Egocentric biases in availability and attribution. Journal of Personality and Social Psychology, 1979, 37, 322-336.

Rotter, J.B. Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs, 1966, 80, Whole No. 609.

Schneider, D.J., Hastorf, A.H., and Ellsworth, P.C. Person perception. 2nd Ed. Reading, Massachusetts : Addison-Wesley, 1979.

Shaver, K.G. An introduction to attribution processes. Cambridge, Mass. : Winthrop Publishers, 1975.

Smith, E.R., and Miller, F.D. Limits on perception of cognitive processes : A reply to Nisbett and Wilson. Psychological Review, 1978, 85, 355-362.

Smith, E.R., and Miller, F.D. Limits on perception of cognitive processes : A reply to Nisbett and Wilson. Psychological Review, 1978, 85, 355-362.

Stevens, S.S. A metric for the social consensus. Science, 1966, 151, 530-541.

Stevens, S.S. Psychophysics. New York : Wiley, 1975.

Tversky, A., and Kahneman, D. Causal schemata in judgements under uncertainty. In M. Fisbein (Ed.). Progress in social psychology, Hillsdale, M.J. : Lawrence Erlbaum Associates, 1979.

Weiner, B. A theory of motivation for some classroom experiences. Journal of Educational Psychology, 1979, 71, 3-25.

Weiner, B., Frieze, I.H., Kukla, A., Reed, L., Rest, S., and Rosenbaum, R.M. Perceiving the causes of success and failure. Morristown, New Jersey : General Learning Press, 1971.

Weiss, R.S. The emotional impact of marital separation. Journal of Social Issues, 1976, 32, 135-145.

White, P. Limitations on verbal reports of internal events : A refutation of Nisbett and Wilson and of Bem. Psychological Review, 1980, 87, 105-112.